

ORDER NO. MGCS940601C0
(Standard Version)

Service Manual

Facsimile

UF-V40
UF-V60



UF-V60, UF-V40, UF-128M COMPARISON TABLE\СРАВНИТЕЛЬНАЯ ТАБЛИЦА ФАКСОВ UF-V60, UF-V40, UF-128M
DISASSEMBLY INSTRUCTIONS\ПОРЯДОК РАЗБОРКИ
MAINTENANCE, ADJUSTMENTS AND CHECK POINTS\РЕГУЛИРОВКИ, НАСТРОЙКИ, ТОЧКИ ПРОВЕРОК
REQUIRED TOOLS\НЕОБХОДИМЫЕ ИНСТРУМЕНТЫ
PERIODIC MAINTENANCE POINTS\ТОЧКИ ПЕРИОДИЧЕСКОГО ОБСЛУЖИВАНИЯ
PERIODIC MAINTENANCE CHECK LIST\СПИСОК ПЕРИОДИЧЕСКИХ ПРОВЕРОК
PROGRAM ROM\ПОСТОЯННОЕ ЗАПОМИНАЮЩЕЕ УСТРОЙСТВО (ПЗУ)
SCHEMATIC DIAGRAM\УПРОЩЕННАЯ СХЕМА
SC PC BOARD\ОСНОВНАЯ ПЛАТА
POWER SUPPLY PC BOARD\ПЛАТА ПИТАНИЯ
MIF PC BOARD\ПЛАТА УПРАВЛЕНИЯ РЕЗАКОМ
NCU PC BOARD\ПЛАТА СОПРЯЖЕНИЯ С ТЕЛЕФОННОЙ ЛИНИЕЙ
SRU PC BOARD\ПЛАТА СОПРЯЖЕНИЯ С ТЕЛЕФОННОЙ ТРУБКОЙ
ENDMK PC BOARD\ПЛАТА СЕНСОРА
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DIAGNOSTIC CODES\ДИАГНОСТИЧЕСКИЕ КОДЫ
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CCD TEST\ТЕСТ ПЗС МАТРИЦЫ
TONAL SIGNAL GENERATION\ТЕСТ ГЕНЕРАТОРА НЕСУЩЕЙ
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PACKING & ACCESSORIES\УПАКОВКА И АКСЕССУАРЫ

Panasonic

UF-V60, UF-V40 and UF-128M Specification Comparison Table

Refer to the comparison table below for the different points between UF-V60, UF-V40 and UF-128M specifications.

Specification Comparison

Items	UF-V60	UF-V40	UF-128M
1. MAIN SPECIFICATION			
Compatibility	G3	←	←
Modem Speed (bps)	9600/7200/4800/2400 with automatic fallback	←	←
Coding Scheme	MH/MR/MMR/MWS	MH/MR/MWS	MH/MR/MWS
ECM	Yes (Conform to ITU-T)	No	Yes
White Line Skip	Yes	←	←
Short Protocol	Phase B	←	Phase B and D
Transmission Speed	Approx. 10 sec using ITU-T(CCITT) No.1 chart	Approx. 15 sec	Approx. 15 sec
2. SCANNER MECHANISM			
ADF Capacity	10 sheets	←	←
Document Size (Max.)	257 × 1000mm	←	←
Document Size (Min.)	148 × 105mm	←	148 × 73mm
Effective Document Width	208mm	←	←
Scanning Device	CCD	←	←
Scanning Resolution (pels/mm / lines/mm)	Standard : 8 × 3.85 Fine : 8 × 7.7 Super Fine : 8 × 15.4	←	← (Super Fine is not conforms to ITU-T)
Scanning Speed (A4 sizedocument) (Note 1)	12 seconds	N/A	12 seconds
Document Stack	Face down	←	←
3. PRINTER MECHANISM			
Recording Method	Thermal Print Head	←	←
Recording Paper Width	A4 / B4 (Note 2)	←	←
Recording Paper Length	30 m	←	50m
Effecting Printing Width	208mm / 252mm (Note 2)	←	←
Automatic Paper Cutter	Yes	←	←
Paper Stack	Face up	←	←

Note 1 : It is memory storing speed.

Note 2 : B4 size is used only for Taiwan and China.

Specification Comparison

Items	UF-V60	UF-V40	UF-128M
4. MEMORY			
Voice / Document Memory	Yes 9 min. or 50 pages	No	Yes (Document)
5. COPY QUALITY			
Half Tone	64 levels (Error Diffusion)	←	16 levels (Dithering)
Super Fine (8 x 15.4 lines/mm)	Yes (Conform to ITU-T)	←	← (Panafax only)
Original Contrast Selection	3 levels	←	2 levels
6. DIALING / TELEPHONE FEATURE			
One-touch Auto Dialing	5 stations	←	16 stations
ABBR.Auto Dialing	15 stations	←	54 stations
Auto Dialing Capacity	20 stations	←	70 stations
Telephone Number Capacity	Max. 36 digits	←	←
Station Name Capacity	Max. 15 characters	←	←
Directory Search Dialing	Sequential alpha-numeric sorted dialing search	←	No
Full Number Dialing (Buffered Dialing)	3 stations	1 station	3 stations
Direct Dialing (Monitor Dialing)	3 stations	1 station	←
Automatic Redialing	5 times with 3 minute interval	←	←
Manual Redialing	Yes	←	←
Chain Dialing	Monitor dialing Off Hook dialing	←	One-Touch / ABBR dialing Direct dialing
Line Monitor Speaker	Yes	←	←
Hold Key	Yes	←	No
Dialing Method	10 PPS or DTMF Slide Switch	←	10 PPS or DTMF Fax Parameter
Pulse-to Tone change	* key	←	←
Flash Key	Yes	←	No
Telephone Handset	Yes	←	←

Specification Comparison

Items	UF-V60	UF-V40	UF-128M
7. RECEIVE CONTROL			
Fax/Tel Autoswitch	Yes	←	←
Fax/External TAM Autoswitch	No	Yes	Yes
Fax/Built-In TAM Autoswitch	Yes	No	No
Voice Answer for Fax/Tel Autoswitch	Yes	←	No
Silent Reception	Fax/TEL mode Fax/TAM mode	Fax/TEL mode	No
Ring Counter	1 to 9	←	1 to 8
External Telephone Connection	Yes	←	←
External TAM Interface	No	Yes	Yes
Remote Reception	Yes	←	No
Friendly Reception (CNG detection during conversation over telephone)	Yes	←	No
Distinctive Ring Detection	Yes	←	←
Reception Mode Switching Timer	Yes	←	No
Off-Hook Detection of telephone connected parallel	Yes (Note)	← (Note)	No
8. TRANSMISSION FEATURES			
Memory Transmission	Max. 50 pages (using ITU-T No.1 chart)	No	Max. 7 pages
Multi-Station Transmission	Max. 23 stations	No	Max. 73 stations
Deferred Transmission	1 timer	←	No
Mailbox Reception Notice	Yes	No	No
9. RECEPTION FEATURES			
Personal Mailbox	Yes	No	No
Substitute Reception	Yes	No	Yes
10. POLLING FEATURES			
Polling	Yes	←	←
Fax Bulletin Board	Yes	No	No

Note : Depending on country.

Specification Comparison

Items	UF-V60	UF-V40	UF-128M
11. CONVENIENCE			
Panel Display	20 characters × 1 line	←	16 characters × 1 line
Help Function	Yes	←	No
Voice Contact	Yes	←	←
12. COPY FUNCTIONS			
Single Copy	Yes	←	←
Multiple Copy	Max. 99 copies	No	Yes
13. CERTAINTY			
Verification Stamp	Face side	←	←
Header / Total Page Print	Yes	←	←
Transmission Journal	Yes	←	←
Comm. Journal	Yes	←	←
14. LIST PRINTOUTS			
Speed Dial List	Yes	←	←
Fax Parameter List	Yes	←	←
Help Print	Yes	←	No
15. IDENTIFICATIONS			
Logo	Max. 25 characters	←	←
Character ID	First 16 characters of the Logo	←	No
Numeric ID	Max. 20 digits	←	←
16. SPECIAL COMMUNICATION FEATURE			
Remote Diagnostic Function	Yes	←	←
Daylight Savings Time Adjustment	Yes (Note)	← (Note)	No
Selective Reception	Yes	←	No

Note : Depending on country

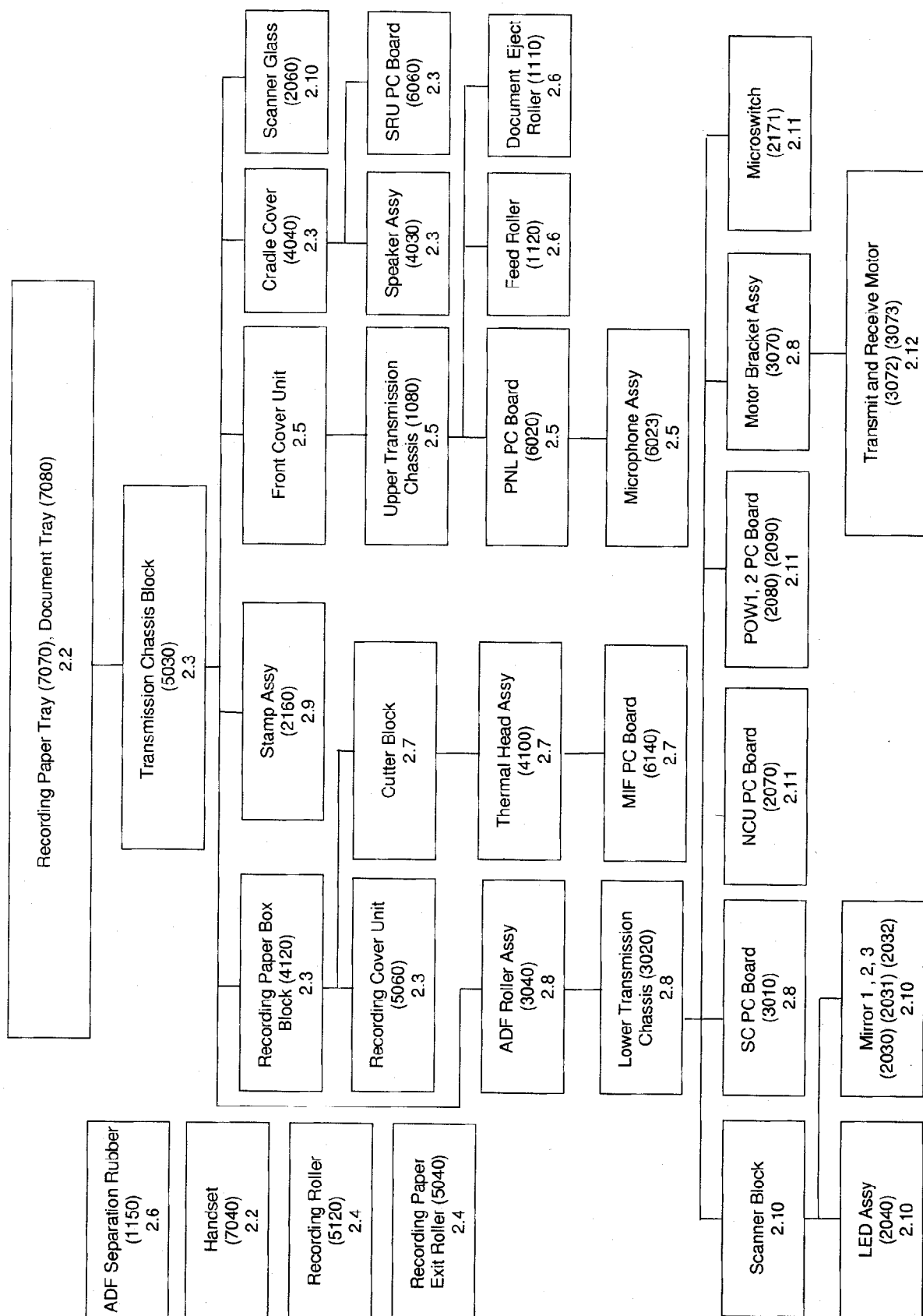
Specification Comparison

Items	UF-V60	UF-V40	UF-128M
17 TAM FEATURE			
Built-In TAM	Max. 9 minutes for ICM	No	No
ICM Recording	Max. 99 messages	No	No
OGM	Max. 30 seconds	←	No
Message Transfer	Yes	No	No
Toll Saver	Yes	No	No
Time Stamp	Yes	No	No
Memo / 2 Way Recording	Yes	No	No
18. REMOTE CONTROLLED FEATURE			
In/Out Switching	Yes	No	No
ICM Playback/Skip/Erase	Yes	No	No
Personal Mailbox Retrieval	Yes	No	No
Personal Mailbox Setting	Yes	No	No
Fax Bulletin Board Retrieval/Erase/Store	Yes	No	No
Message Transfer Setting	Yes	No	No
Mailbox Reception Notice Setting	Yes	No	No
Changing Destination No. for Message Transfer	Yes	No	No
Changing Destination No for Mailbox Reception Notice	Yes	No	No
OGM Recording	Yes	No	No
19. OTHERS			
Remote Diagnostic	Yes	←	←
Memory Backup	2 weeks	←	7 days
20. CONSTRUCTION			
Dimensions (W × D × H)	401 × 269 × 126 mm	←	340 × 303 × 130 mm
Weight	4.5 Kg	←	4.6 Kg

Specification Comparison

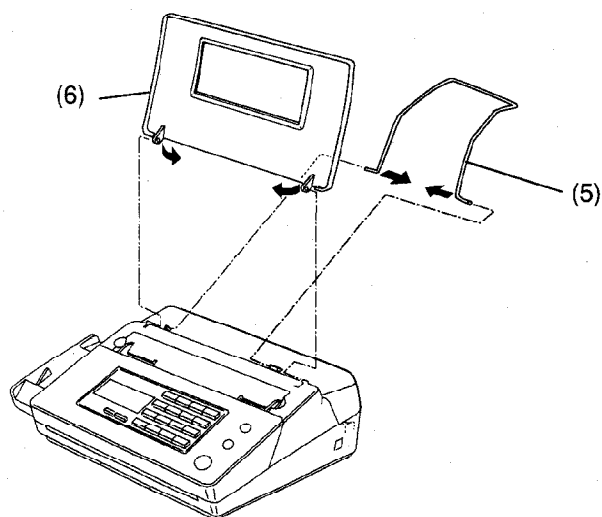
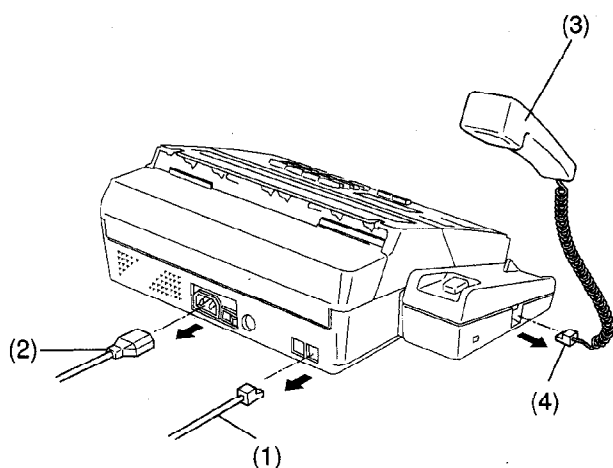
Items	UF-V60	UF-V40	UF-128M
21. POWER SUPPLY			
Power Supply	AC 180 - 264 V (AC 115 \pm 17 V) 50/60 Hz, Single phase	←	←
Power Consumption	Standby : Approx. 7W Transmission : Approx. 20W Reception : Approx. 25W Copy (Max.) : Approx. 120W	←	Approx. 8W Approx. 18W Approx. 30W Approx. 88W
22. ENVIRONMENT			
Temperature	Operation : 6 to 35°C Storage : -10 to 55°C Transport : -30 to 60°C (Max. 72H)	←	Operation : 5 to 35°C
Relative Humidity	Operation : 20 to 80% RH Storage : 10 to 85% RH Transport : 10 to 85% RH (Max. 72H)	←	Transport : 5 to 85% RH
23. STANDARD			
ITU-T (CCITT)	Rec. T3, T4, T30	←	←
PTT	Each country standard	←	←
Safety	IEC959	←	←

Note: Manufacturer reserve the right to change the specification without notice.



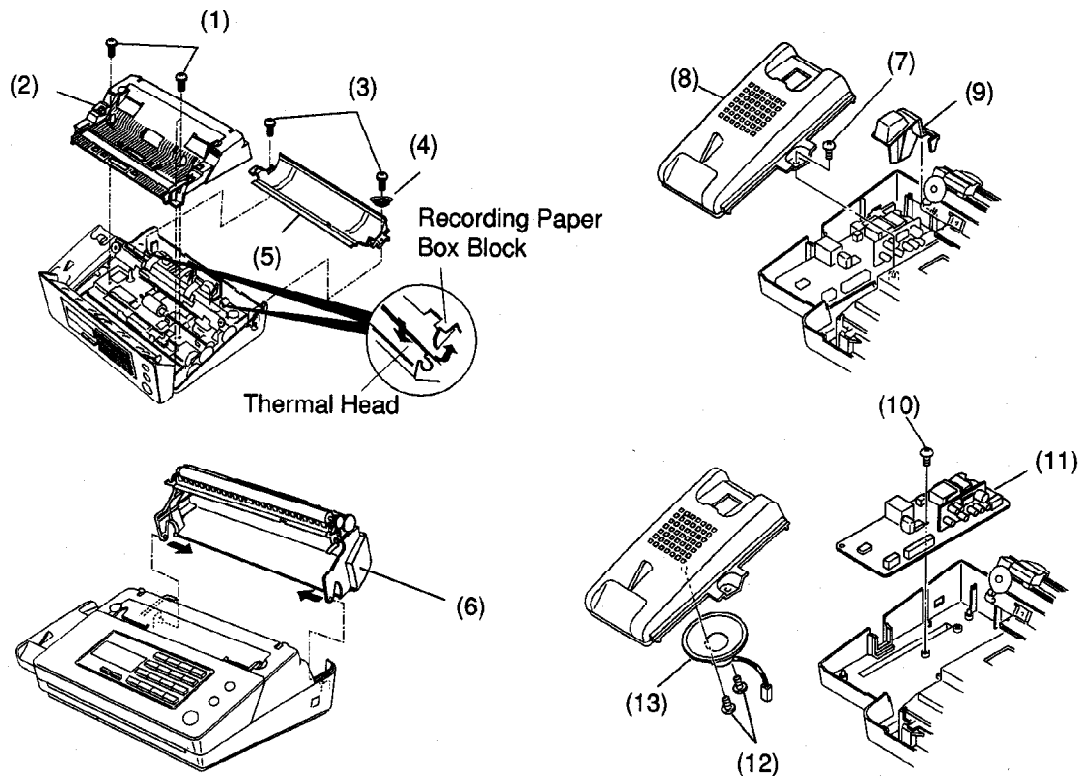
Document Tray (7080) and Recording Paper Tray (7070)

Step	Figure	Disassembly Procedure
1		Turn the Power Switch "Off".
2	(1)	Disconnect the Line Cord (7020).
3	(2)	Disconnect the Power Cord (7010).
4	(3)(4)	Remove the Handset (7040) and the Handset Cord (7030).
5	(5)	Remove the Recording Paper Tray (7070).
6	(6)	Remove the Document Tray (7080).



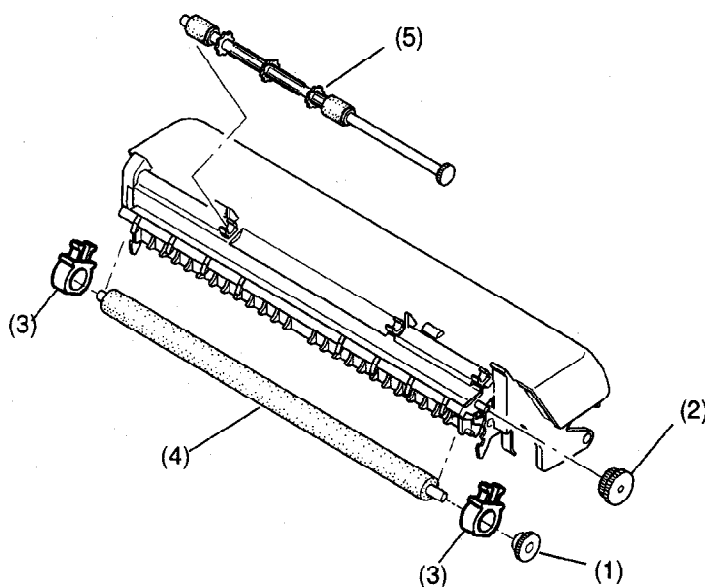
**Transmission Chassis Block (5030), Recording Paper Box Block (4120),
Recording Cover Unit (5060) and SRU PC Board (6060)**

Step	Figure	Disassembly Procedure
1		Remove the Document Tray and the Recording Paper Tray. (See Section 2.2)
2	(1)	Three Screws (A5)
3	(2)	Remove the Transmission Chassis Block (5030).
4	(3) (4)	Two Screws (1Y) and one Coil Spring (4123)
5	(5)	Remove the Recording Paper Box Block (4120) while pressing down on the Thermal Head on each end. Caution : Be careful with the sharp cutter blade.
6	(6)	Remove the Recording Cover Unit (5060)
7	(7)	One Screw (1Y)
8	(8)	Remove the Cradle Cover (4040).
9		Disconnect CN41 on the SRU PC Board.
10	(9)	Remove the Hook Button (4050).
11		Disconnect CN37 and CN39 on the SRU PC Board.
12	(10)	One Screw (A5)
13	(11)	Remove the SRU PC Board (6060).
14	(12)	Two Screws (3P)
15	(13)	Remove the Speaker Assy (4030).



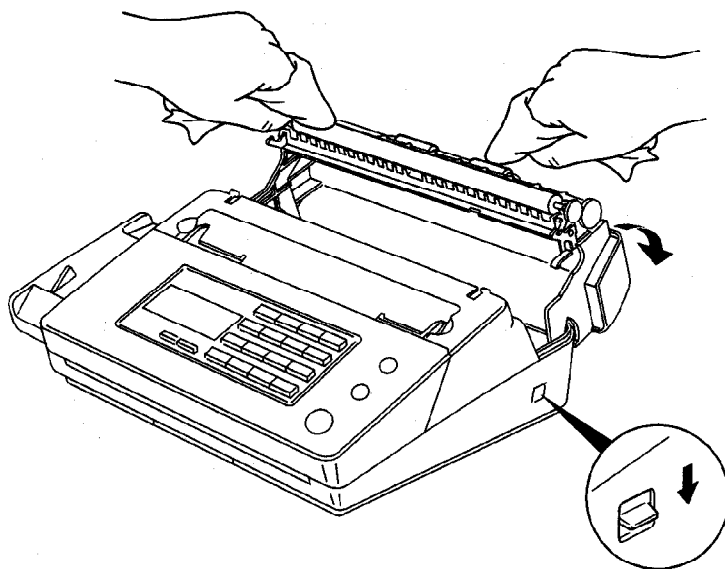
Recording Roller (5120) and Recording Paper Exit Roller (5040)

Step	Figure	Disassembly Procedure
1		Open the Recording Cover Unit.
2	(1)	Remove the Drive Gear (5121).
3	(2)	Remove the Clutch Gear (5070). Note : Be sure the white half is on the outside when reassemble.
4	(3)	Detach the Bushing (5051) by pushing the claws inward by a small screwdriver or whatever.
5	(4)	Remove the Recording Roller (5120).
6	(5)	Remove the Recording Paper Exit Roller (5040).



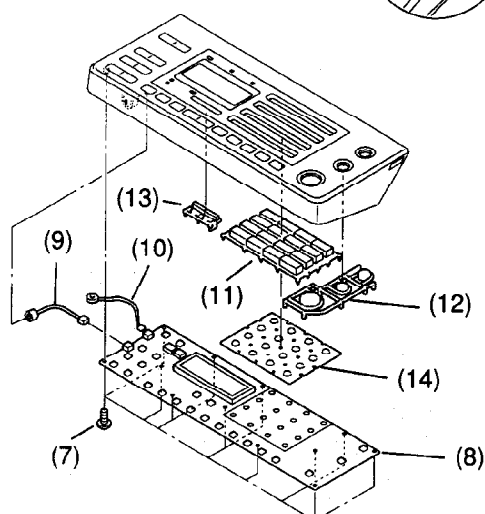
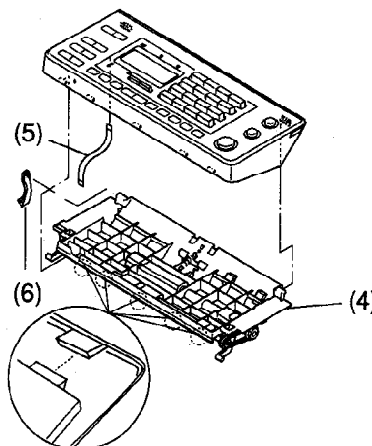
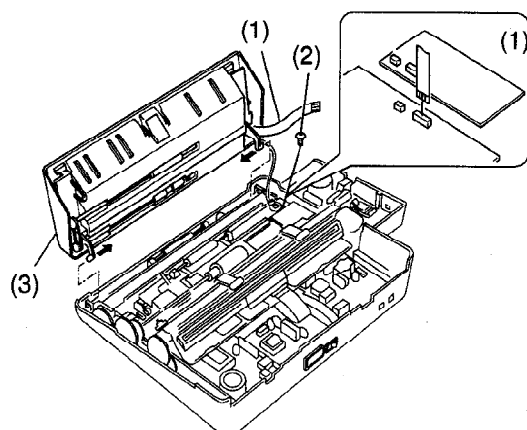
Cleaning

1. Open the Recording Cover.
2. Cleaning the Recording Roller and the Recording Paper Exit Roller using a soft cloth soaked with ethyl alcohol.



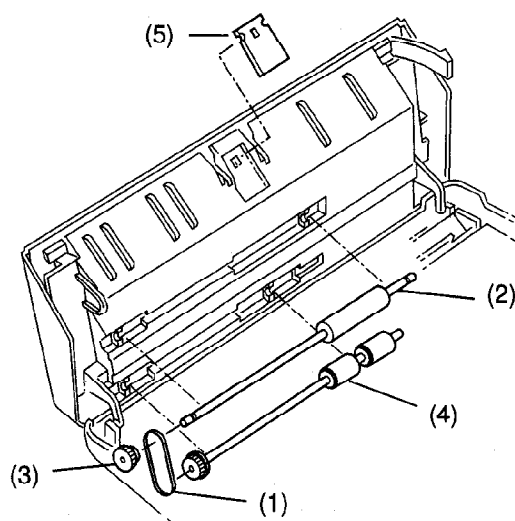
Panel PC Board (6020) and Microphone Assy (6023)

Step	Figure	Disassembly Procedure
1		Remove the Transmission Chassis Block and the Cradle Cover (See Section 2.3).
2	(1)	Disconnect CN15 on the SC PC Board.
3	(2)	One Screw (A5) and Ground Wire
4	(3)	Remove the Front Cover Unit.
5	(4)	Remove the Upper Transmission Chassis (1080) by releasing six hooks.
6	(5)	Remove the PNL1 FFC (6021) on the Panel PC Board.
7	(6)	Remove the S-Stopper (1180).
8	(7)	Twelve Screws (7B)
9	(8)	Remove the PNL PC Board (6020).
10	(9) (10)	Disconnect CN50 and CN57 on the PNL PC Board and remove the Microphone Assy (6023) and the Ground Strap (6024).
(11)	(11)~(14)	Remove the Key Top A, B, C (1030) (1031) (1032) and the Click Sheet (1040).



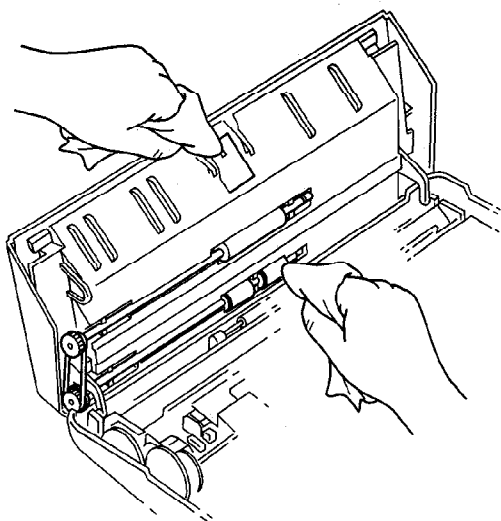
Feed Roller (1120), Document Eject Roller (1110) and Separation Rubber (1150)

Step	Figure	Disassembly Procedure
1		Open the Front Cover Unit.
2	(1)	Remove the Timing Belt (1130).
3	(2)	Remove the Feed Roller (1120).
4	(3)	Remove the Drive Gear (1100).
5	(4)	Remove the Document Eject Roller (1110).
6	(5)	Remove the Separation Rubber (1150).



Cleaning

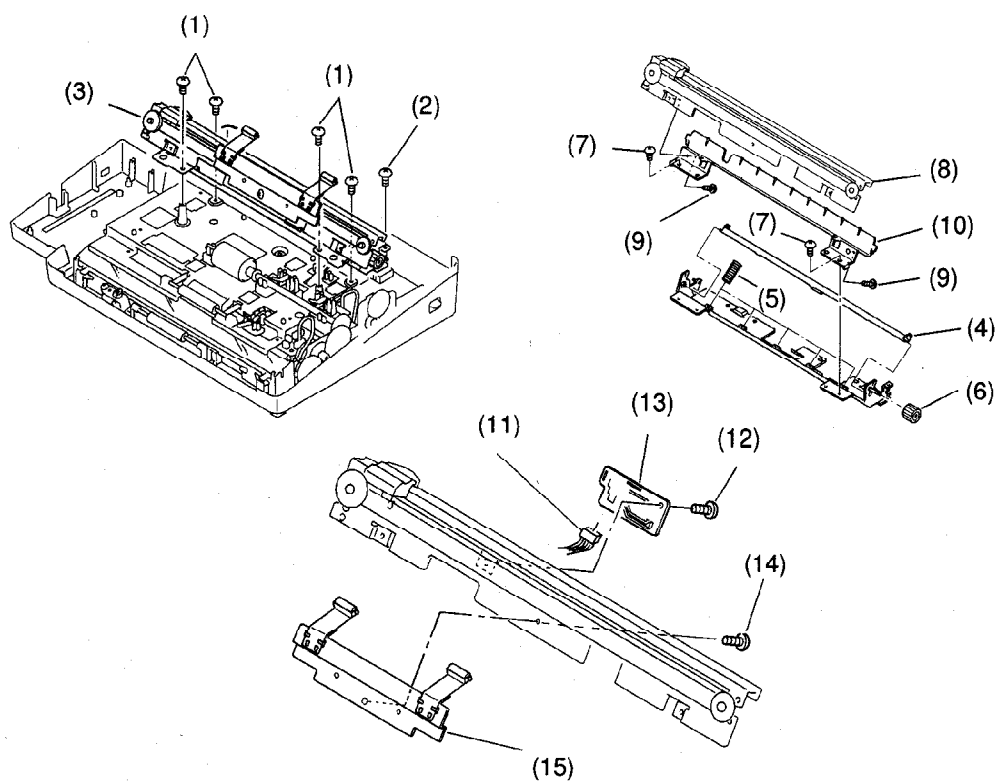
1. Open the Front Cover Unit.
2. Clean the Feed Roller, Document Eject Roller, Scanner Glass and Separation Rubber using a soft cloth soaked with ethyl alcohol.



Cutter Assy (4080), MIF PC Board (6140) and Thermal Head Assy (4100)

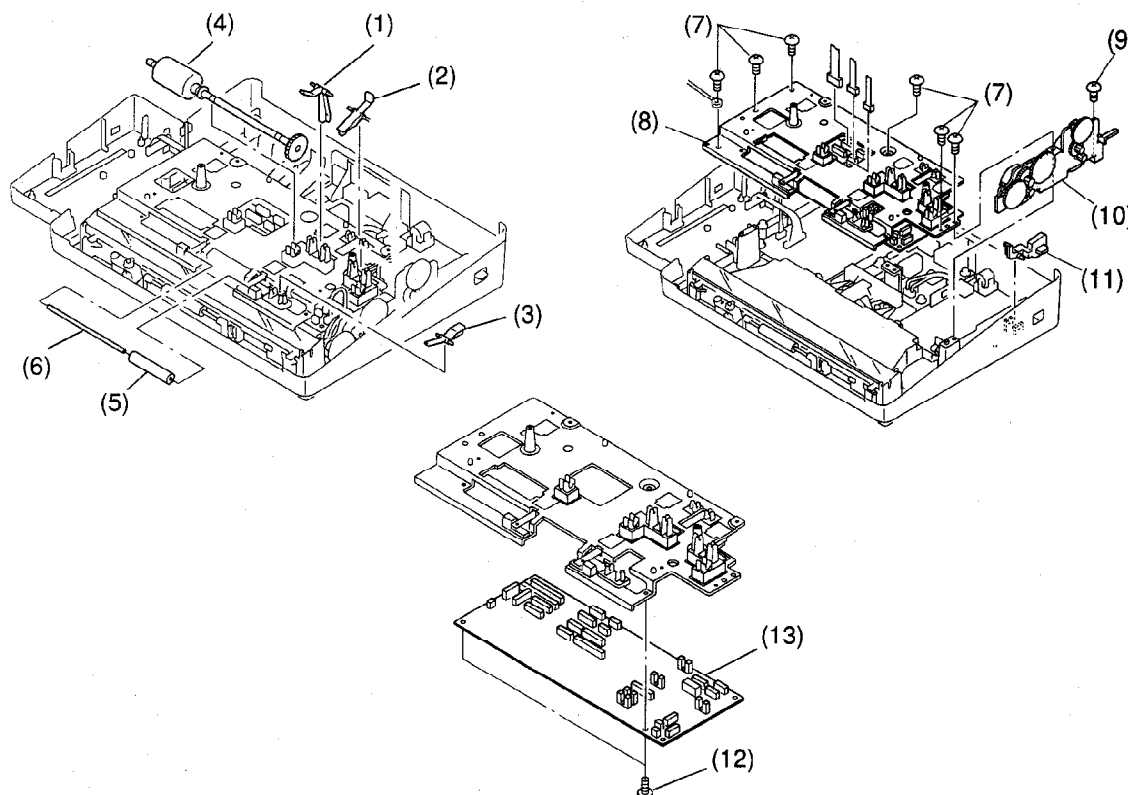
Step	Figure	Disassembly Procedure
1		Remove the Transmission Chassis Block and the Recording Cover Block. (See Section 2.3)
2	(1) (2)	Four Screws (A5) and one Screw (6Q)
3	(3)	Remove the Recording Block.
4		Disconnect CN20 and CN21 on the SC PC Board.
5	(4)	Remove the Thermal Head Assy (4100).
6	(5)	Remove five Coil Spring (4111).
7	(6)	Remove Idle Gear (4112).
8	(7)	Two Screws (A5)
9	(8)	Remove the Cutter Block.
10	(9)	Two Screws (A5)
11	(10)	Remove the R-Guide Plate (4090).
12	(11)	Disconnect CN61 and CN65 on the MIF PC Board.
13	(12)	One Screw (A5)
14	(13)	Remove MIF PC Board (6140).
15	(14)	One Screw (A5)
16	(15)	Remove the Pinch Roller Chassis Block.

Caution : Be careful with the sharp cutter blade when servicing.



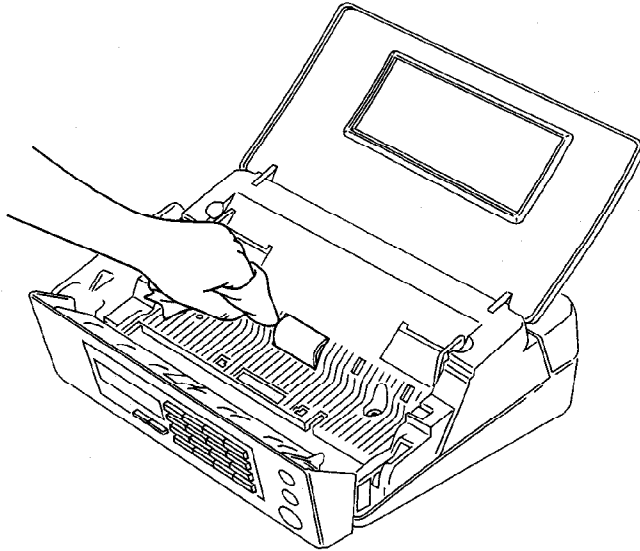
ADF Roller Assy (3040), Motor Bracket Assy (3070) and SC PC Board (3010)

Step	Figure	Disassembly Procedure
1		Remove the Recording Block. (See Section 2.6.)
2	(1)~(3)	Remove three Sensor Arms (3060) (3061) (3050).
3	(4)	Remove the ADF Roller Assy (3040).
4	(5)(6)	Remove the Pinch Roller (3030) and the Pinch Roller Shaft (3031).
5		Disconnect all connectors (CN11,12,13,14,15,18, 22) on the SC PC Board. Note : Release the lock on the CN18 before disconnecting the cable.
6	(7)	Six Screws (A5)
7	(8)	Remove the Lower Transmission Chassis (3020).
8		Disconnect CN30, 31 on the NCU and CN4 on the POW2 PC Board.
9	(9)	One Screw (A5)
10	(10)	Remove the Motor Bracket Assy (3070).
11	(11)	Remove the Latch Lever (2120).
12	(12)	Two Screws (A5)
13	(13)	Remove the SC PC Board (3010).
14		Disconnect CN10, 16 and 17 on the SC PC Board.



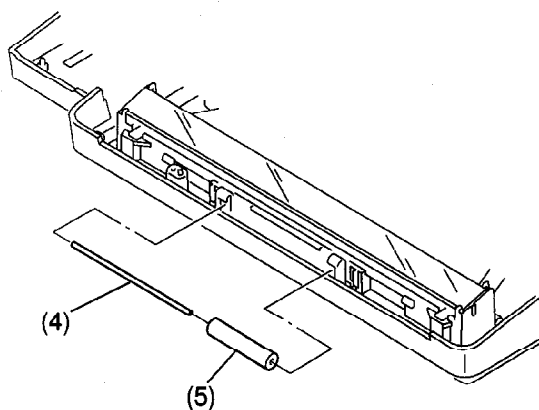
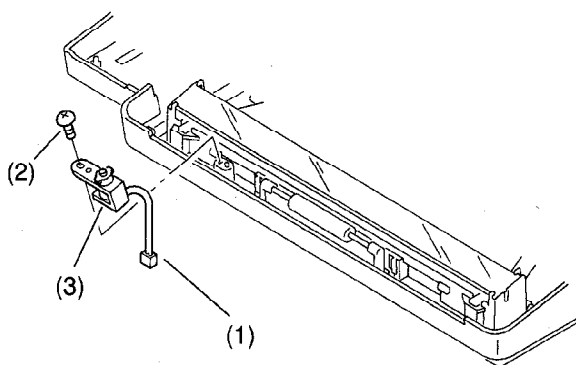
Cleaning

1. Open the Front Cover Unit.
2. Cleaning the ADF Roller using a soft cloth soaked with ethyl alcohol.



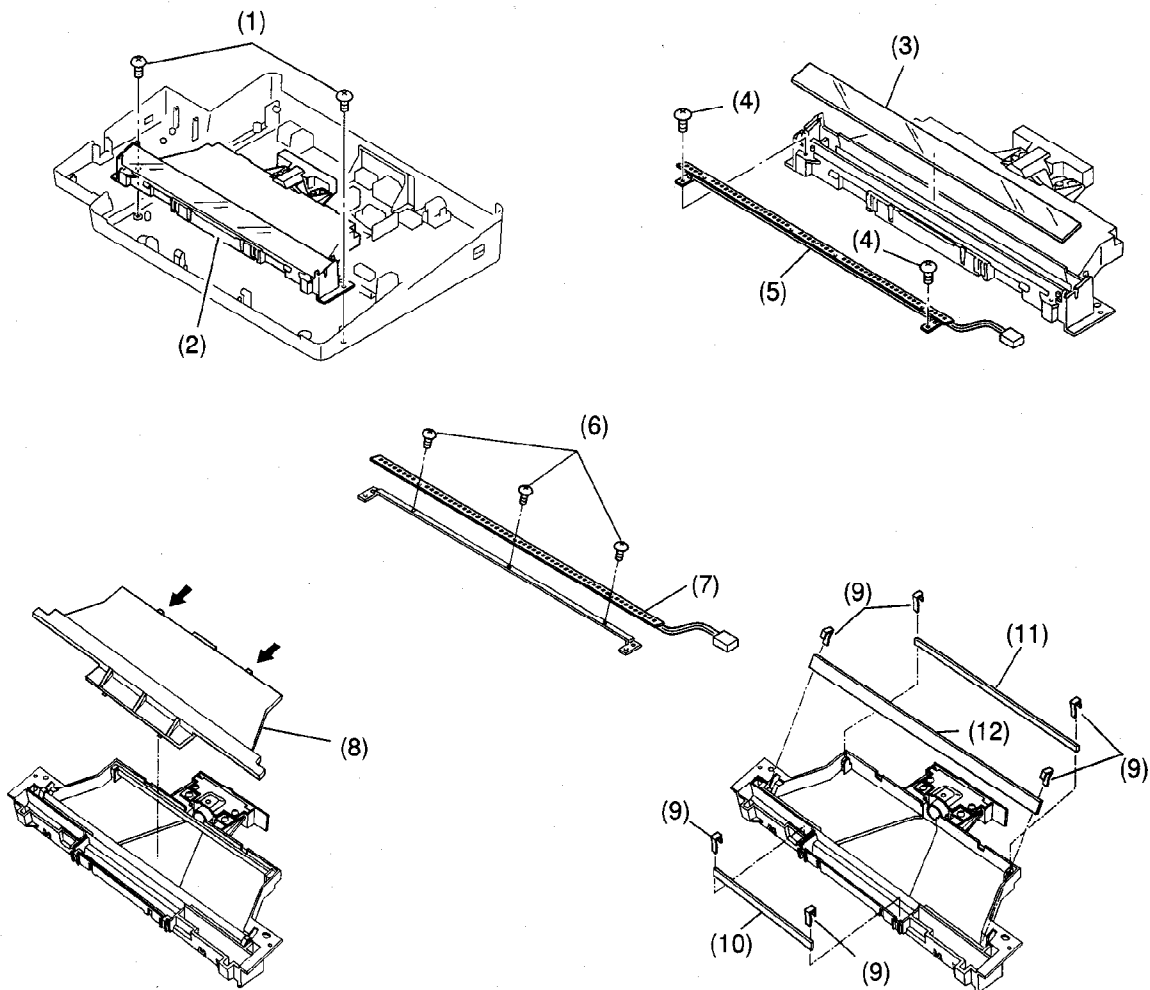
Stamp Assy (2160) and Pinch Roller A (2150)

Step	Figure	Disassembly Procedure
1		Remove the Transmission Chassis Block. (See Section 2.3)
2	(1)	Disconnect CN14 on SC PC Board.
3	(2)	One Screw (A5)
4	(3)	Remove the Stamp Assy (2160).
5	(4)(5)	Remove the Shaft (2151) and the Pinch Roller A (2150).



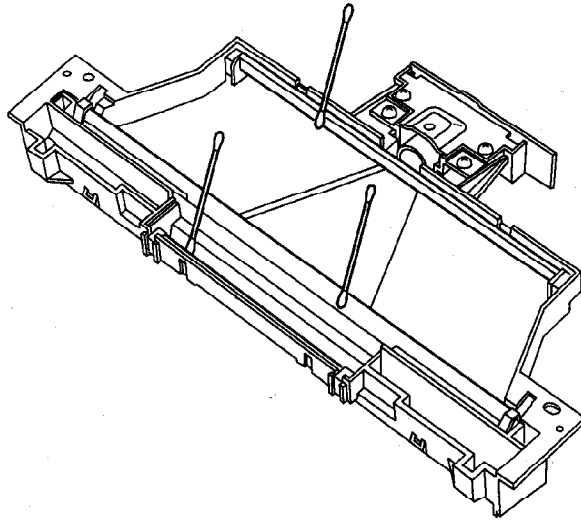
Scanner Block

Step	Figure	Disassembly Procedure
1		Remove the Lower Transmission Chassis (3020). (See Section 2.8)
2	(1)	Two Screws (A5)
3	(2)	Remove the Scanner Block .
4	(3)	Remove the Scanner Glass (2060).
5	(4)	Two Screws (A5)
6	(5)	Remove the LED Block.
7	(6)	Three Screws (96)
8	(7)	Remove the LED Assy (2040).
9	(8)	Remove the Scanner Block Cover (2051).
10	(9)	Remove six Plate Springs (2033).
11	(10)~(12)	Remove Mirror 1, 2 and 3 (2030), (2031) and (2032). Note : The surface marked with a line is the non reflective side.



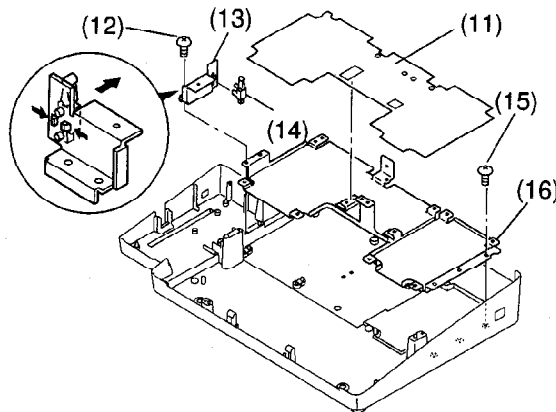
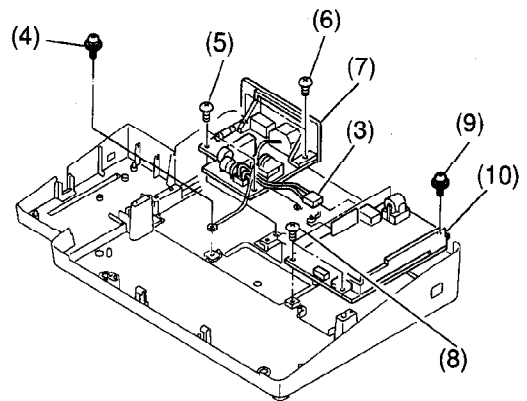
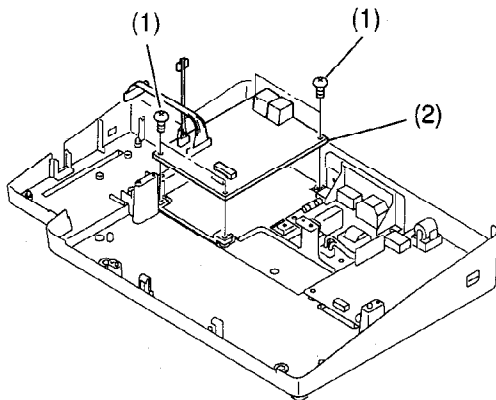
Cleaning

1. Remove the Scanner Block.
2. Remove the Scanner Block Cover.
3. Clean the reflective side of the Mirror 1, 2 and 3



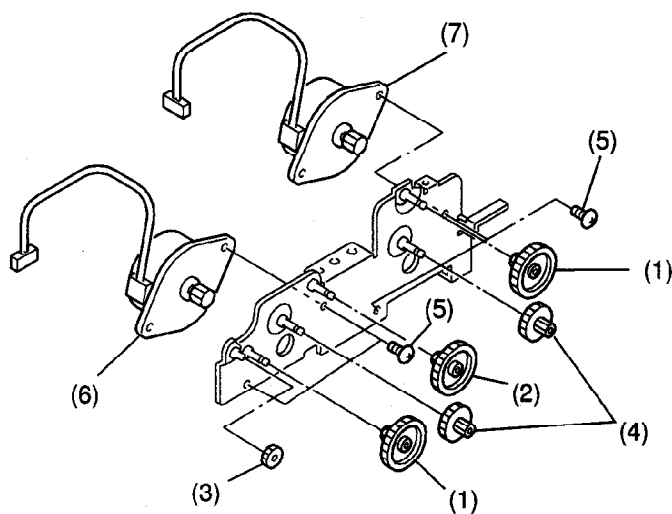
NCU PC Board (2070) and POW 1, 2 PC Boards (2080) (2090)

Step	Figure	Disassembly Procedure
1		Remove the Lower Transmission Chassis (3020). (See section 2.8)
2	(1)	Four Screws (A5)
3	(2)	Remove the NCU PC Board (2070).
4	(3)	Disconnect CN3 on the POW 2 PC Board.
5	(4)	One Screw (24) for the Ground strap on the POW 1 PC Board.
6	(5) (6)	Two Screws (A5) and two Screws (1Y)
7	(7)	Remove the POW 1 PC Board (2080).
8	(8) (9)	Three Screws (A5) and one Screw (B2)
9	(10)	Remove the POW 2 PC Board (2090).
10	(11)	Remove the Insulation Sheet (2100).
11	(12)	One Screw (A5)
12	(13)	Remove the Microswitch Bracket (2170).
13	(14)	Remove the Receiving Door Sensor (2171).
14	(15)	One Screw (A5)
15	(16)	Remove the NCU Chassis (2110).



Motor Bracket Assy (3070), Transmit and Receive Motor (3072) (3073) and Gears (3074) (3075) (3076) (3077)

Step	Figure	Disassembly Procedure
1		Remove the Motor Bracket Assy (3070). (See section 2.8)
2	(1)~(4)	Remove six Gears (3074) (3075) (3076) (3077).
3	(5)	Four Screws (A5)
4	(6)(7)	Remove the Transmit Motor (3072) and Receive Motor (3073).

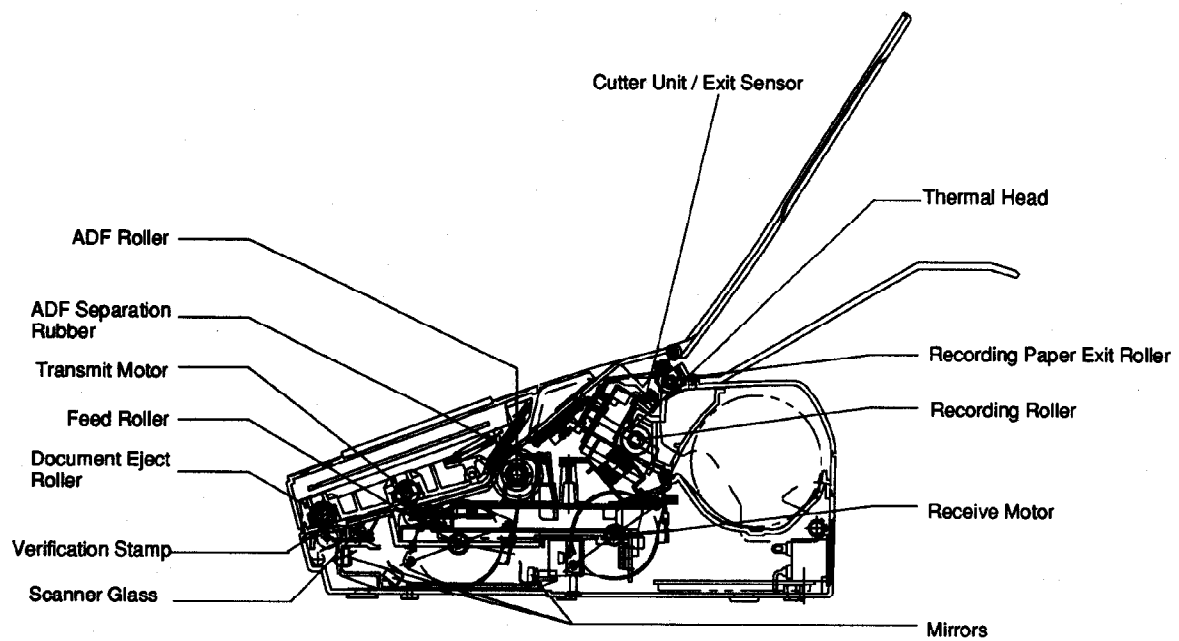


Required Tools

Tool List

No.	Tool	No.	Tool
1	Soft Cloth	5	Tweezers
2	Ethyl Alcohol	6	Pliers
3	Phillips Screwdriver (#0) (#2)	7	Cotton Swab
4	Blade-tip Screwdriver (3/32 in)	8	Brush

Periodic Maintenance Points



Periodic Maintenance Check List

The chart outlined below is a general guideline for maintenance. The example list is for an average usage of 50 transmitted and received documents per day. Needless to say, the environmental conditions and actual use will vary these factors.

The chart below is for reference only.

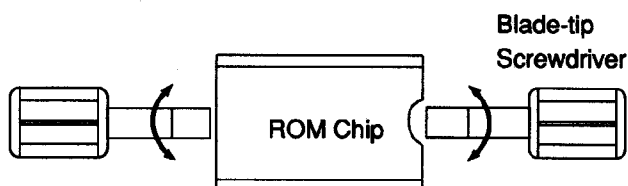
Periodic Maintenance Check List

Maintenance Item	Cleaning		Replacement/Adjustment	
	Cycle	Method	Cycle	Method
ADF Roller	3 months	Page 2-12	1-3 years (10,000 documents)	Page 2-12
Separation Rubber	3 months	Page 2-9	1-3 years (10,000 documents)	Page 2-8
Verification Stamp	-	Page 2-13	1-3 years (5,000 documents)	Page 2-13
Feed Roller	3 months	Page 2-19	3-5 years (30,000 documents)	Page 2-8
TX Motor	-	-	5 years	Page 2-17
RX Motor	-	-	5 years	Page 2-17
Scanner Glass	3 months	Page 2-9	-	-
Document Eject Roller	3 months	Page 2-9	3-5 years (10,000 documents)	Page 2-8
Recording Paper Exit Roller	3 months	Page 2-6	3~5 years (10,000 documents)	Page 2-5
Thermal Head	3 months	Page 2-10	4 years	Page 2-10
Recording Roller	3 months	Page 2-6	5 years	Page 2-5
Cutter Unit	-	-	5 years (30,000 documents)	Page 2-10
Exit Sensor (on the Cutter Unit)	3 months	Page 2-10	-	Page 2-10
Mirror 1, 2 and 3	3 months	Page 2-15	-	-

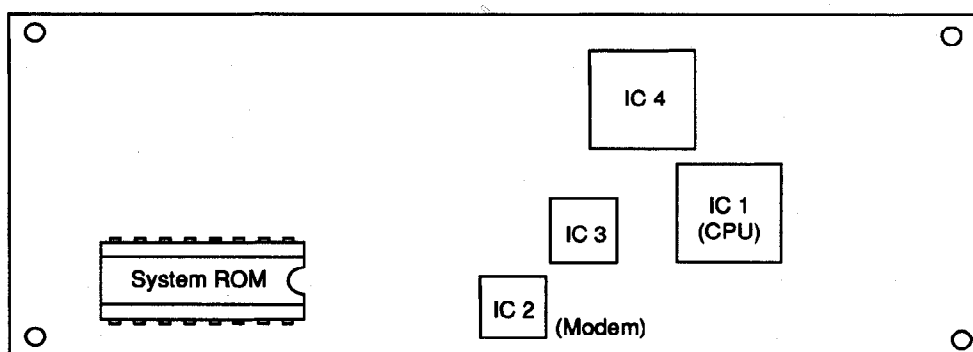
Program ROM

Replacement Procedure (ROM is mounted on SC PCB.)

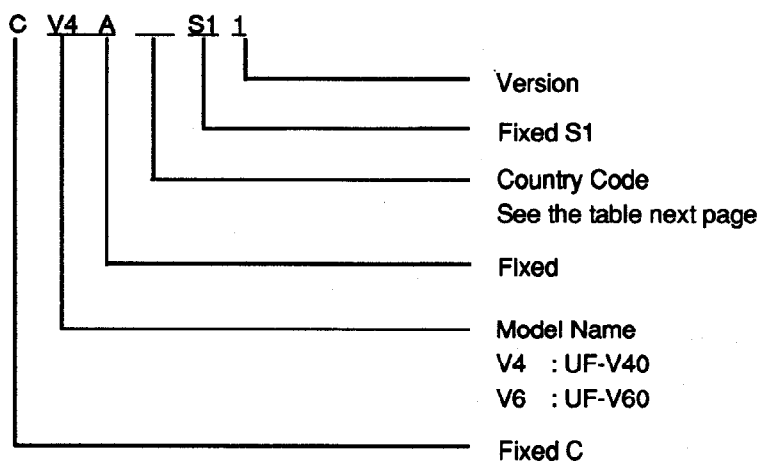
- (1) Turn the Power Switch "Off".
- (2) Open the Front Cover Assy.
- (3) Remove the Transmission Chassis Block.
- (4) Remove the ROM with a blade-tip screwdriver or equivalent tool.
- (5) Insert new ROM.
- (6) Reassemble machine.
- (7) Perform Test Mode No. 6-Parameter Initialize.



ROM Location



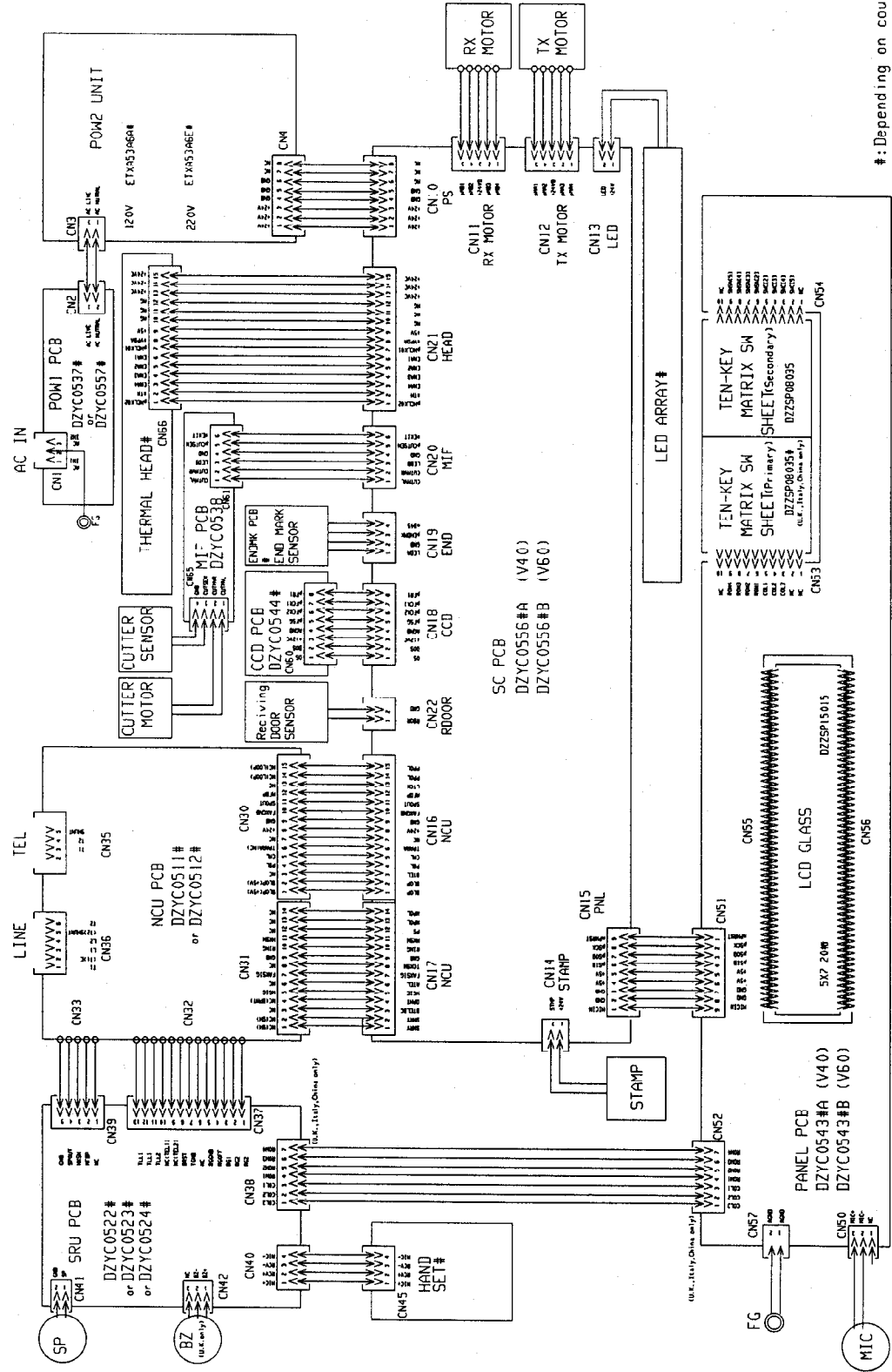
ROM Label



Country Code Table

Country Code	Country	Country Code	Country
AA	Austria	YA	Argentina
AB	U.K.	YC	Others (200 V)
AC	Canada	YS	Others (100 V)
AD	Denmark	YE	Indonesia
AE	Taiwan	YF	Polland
AF	Finland	YG	Greece
AG	Germany	YH	Hungary
AH	Holland	YK	Kuwait
AJ	Spain	YM	Malyasia
AK	Hong Kong	YP	Pakistan
AL	Asutralia	YR	Russia
AM	Switzerland	YS	Saudi Arabia
AN	Norway	YT	Thailand
AP	Portugal	YU	U.A.E.
AQ	Ireland	YV	China
AR	Belgium	YW	South Africa
AS	Sweden	YX	Singapore
AT	Turkey	YY	Mid-South America (100 V)
AU	U.S.A.	YZ	Mid-South America (200 V)
AV	France		
AW	New Zealand		

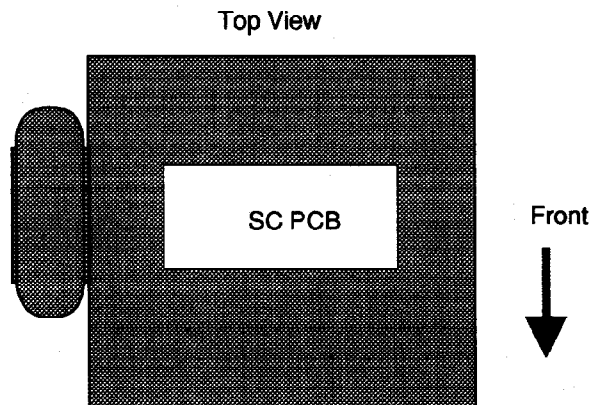
Schematic Diagram



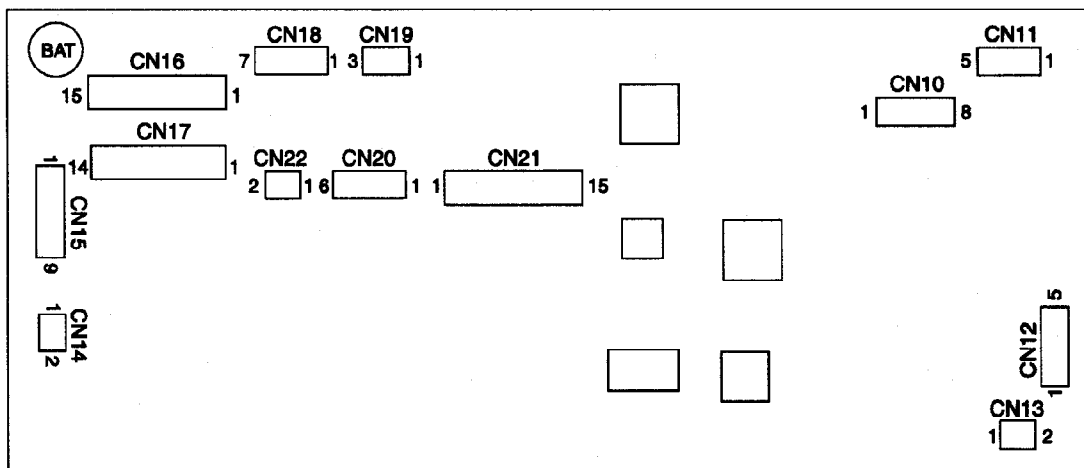
#: Depending on countries

SC PC Board

SC PC Board Location



Connector Location on SC PC Board



Note : CN19 is used only for German model.

Lithium Battery

The Lithium Battery is a critical component.

(Type Number VL1220 Manufactured by Matsushita Electric Industrial Co., Ltd.)

It must never be subjected to excessive heat or discharge. It must therefore only be fitted in equipment designed specifically for its use. Replacement batteries must be of an approved type and manufacturer as indicated above. They must be fitted in the same manner and location as the original battery, with the correct polarity connections observed. Do not attempt to re-charge the old battery or re-use it for any other purpose. It should be disposed of in waste products destined for burial rather than incineration.

WARNING

The lithium battery in this equipment must only be replaced by qualified personnel. When necessary, contact your local Panasonic supplier.







CAUTION

Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Dispose of used batteries according to the above instructions.


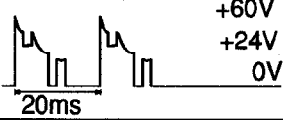
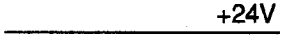


Pin Alignment

Note The following mark in the signal name mean;
* : analog signal.
n : digital signal (normal level is high, activated by low signal.)
p : digital signal (normal level is low, activated by high signal.)




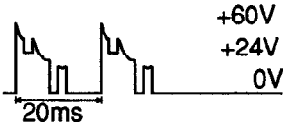

CN10

Pin No.	Signal Name	Signal Waveform	Destination	Function
1 IN	+24V		Power Supply Unit CN14-1	+24 DC Power Supply
2 IN	+24V		Power Supply Unit CN14-2	+24 DC Power Supply
3 IN	+24V		Power Supply Unit CN14-3	+24 DC Power Supply
4	GND		Power Supply Unit CN14-4	Digital Ground
5	GND		Power Supply Unit CN14-5	Digital Ground
6	MG		Power Supply Unit CN14-6	Mechanical Ground
7	NC		Power Supply Unit CN14-7	No Connection
8	NC		Power Supply Unit CN14-8	No Connection


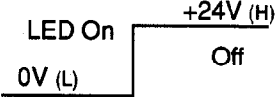
CN11

Pin No.	Signal Name	Signal Waveform	Destination	Function
1 Out	pMB1		Rx MOTOR	Control Pulses for the Stepping Motor
2 Out	pMB2		Rx MOTOR	Control Pulses for the Stepping Motor
3 Out	+24VC		Rx MOTOR	+24V DC Power Supply
4 Out	pMB3		Rx MOTOR	Control Pulses for the Stepping Motor
5 Out	pMB4		Rx MOTOR	Control Pulses for the Stepping Motor


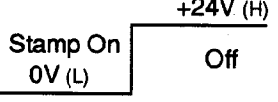
CN12

Pin No.	Signal Name	Signal Waveform	Destination	Function
1 Out	pMA1		Tx MOTOR	Control Pulses for the Stepping Motor
2 Out	pMA2		Tx MOTOR	Control Pulses for the Stepping Motor
3 Out	+24VC		Tx MOTOR	+24V DC Power Supply
4 Out	pMA3		Tx MOTOR	Control Pulses for the Stepping Motor
5 Out	pMA4		Tx MOTOR	Control Pulses for the Stepping Motor






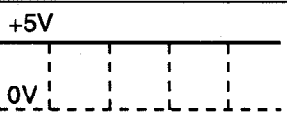
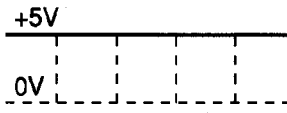
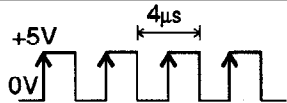
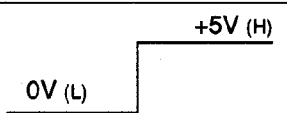
CN13

Pin No.	Signal Name	Signal Waveform	Destination	Function
1 OUT	+24V		LED ARRAY	+24V DC Power Supply
2 OUT	LED		LED ARRAY	LED Array Control Signal L :LED on H :LED off

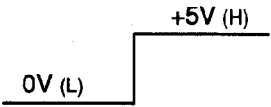
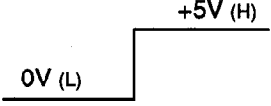
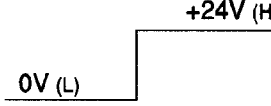
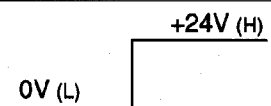
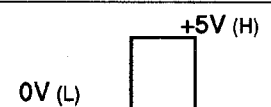



CN14

Pin No.	Signal Name	Signal Waveform	Destination	Function
1 OUT	+24V		STAMP	+24V DC Power Supply
2 OUT	STMP		STAMP	Stamp solenoid Control Signal L :Stamp Solenoid on H :Stamp Solenoid off


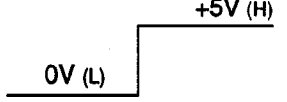
CN15

Pin No.	Signal Name	Signal Waveform	Destination	Function
1 IN	XTL		PANEL PC Board CN51-9	Mic Signal
2	GND	 0V	PANEL PC Board CN51-8	Digital Ground
3	GND	 0V	PANEL PC Board CN51-7	Digital Ground
4 OUT	+5V	 +5V	PANEL PC Board CN51-6	+5V DC Power Supply
5 OUT	+5V	 +5V	PANEL PC Board CN51-5	+5V DC Power Supply
6 OUT	pSID		PANEL PC Board CN51-4	Serial Input Data Synchronize to PSCK
7 IN	pSOD		PANEL PC Board CN51-3	Serial Output Data Synchronize to PSCK
8 OUT	pSCK		PANEL PC Board CN51-2	Synchronize Clock Input/ Output for Serial Data
9 OUT	nPNRST		PANEL PC Board CN51-1	Panel Reset Signal L :Reset Panel CPU





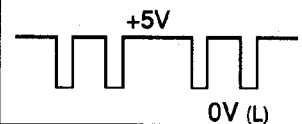
CN16 (1/2)

Pin No.	Signal Name	Signal Waveform	Destination	Function
1 IN	BLOP		NCU PC Board CN30-1	External Telephone Off-Hook Detection L :Off-Hook
2 IN	BLOP		NCU PC Board CN30-2	External Telephone Off-Hook Detection L :Off-Hook
3	BTEL		NCU PC Board CN30-3	Not used
4 OUT	PDL		NCU PC Board CN30-4	Pulse Dialing Control Signal L :Break Loop H :Make Loop
5 OUT	CML		NCU PC Board CN30-5	Control signal for RL1 L :Relay is switched.
6 IN	TPARA		NCU PC Board CN30-6	Hook status for the phone connected parallel to LINE L :On-Hook H Pulse :Off-Hook
7 OUT	ATELDC		NCU PC Board CN30-7	Not used
8 OUT	+24V		NCU PC Board CN30-8	+24V DC Power Supply
9	GND		NCU PC Board CN30-9	Digital Ground
10	FAX GND		NCU PC Board CN30-10	Analog Ground

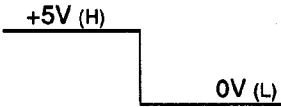
CN16 (2/2)

Pin No.	Signal Name	Signal Waveform	Destination	Function
11 OUT	SPOUT		NCU PC Board CN30-11	Speaker Signal
12 IN	MFDP		NCU PC Board CN30-12	Tone/Pulse Slide Switch Position H : Tone Dialing L : Pulse Dialing
13	LTCK		NCU PC Board CN30-13	Not used
14	PPOL		NCU PC Board CN30-14	Not used
15	PPOL		NCU PC Board CN30-15	Not used

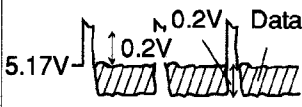
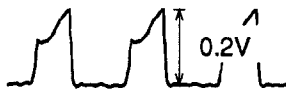
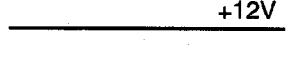

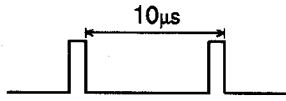
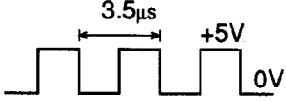
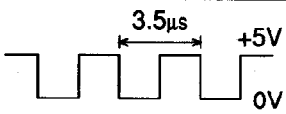

CN17 (1/2)

Pin No.	Signal Name	Signal Waveform	Destination	Function
1	SHRY		NCU PC Board CN31-1	Not used
2	SHRY		NCU PC Board CN31-2	Not used
3	BTEL DC		NCU PC Board CN31-3	Not used
4	DPMT		NCU PC Board CN31-4	Control signal Loop Relay
5 IN/OUT	HSIG		NCU PC Board CN31-5	Telephone signals and CNG
6	ATEL		NCU PC Board CN31-6	Not used
7 IN/OUT	FAX SIG		NCU PC Board CN31-7	Fax signals
8	TCKSW		NCU PC Board CN31-8	Not used
9	GND		NCU PC Board CN31-9	Digital Ground
10 IN	RING		NCU PC Board CN31-10	Ring Status of LINE L :Ringing



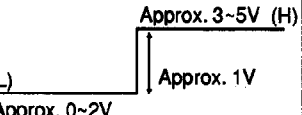
CN17 (2/2)

Pin No.	Signal Name	Signal Waveform	Destination	Function
11 IN	HKSW		NCU PC Board CN31-11	Handset Hook Status H : On-Hook L : Off-Hook
12	PS		NCU PC Board CN31-12	Not used
13	NPOL		NCU PC Board CN31-13	Not used
14	NPOL		NCU PC Board CN31-14	Not used

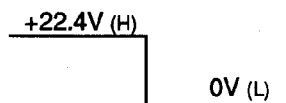
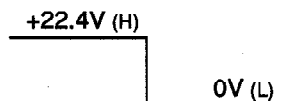


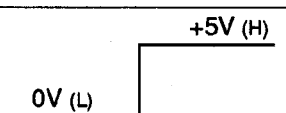
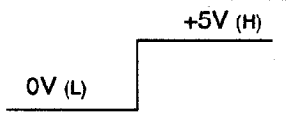
CN18

Pin No.	Signal Name	Signal Waveform	Destination	Function
1 IN	OS		CCD PC Board CN60-1	Output Signal Shaded area is light detected
2 IN	DOS		CCD PC Board CN60-2	Differential Output Signal used to compare with OS to obtain light detected
3 OUT	+12 VC		CCD PC Board CN60-3	+12V DC Power Supply
4	AGND		CCD PC Board CN60-4	Analog Ground
5 IN	pFSG		CCD PC Board CN60-5	Serial Data
6 OUT	pFCK2		CCD PC Board CN60-6	Clock Signal
7 OUT	pFCK1		CCD PC Board CN60-7	Clock Signal
8 OUT	pFR1		CCD PC Board CN60-8	Reset Signal


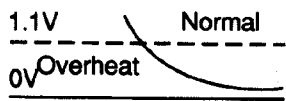


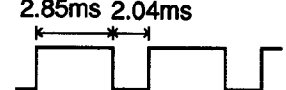
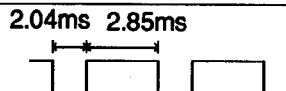




CN19

Pin No.	Signal Name	Signal Waveform	Destination	Function
1 OUT	LEDA		ENDMK PC Board	Approx. +5 V DC Power Supply
2	GND		ENDMK PC Board	Digital Ground
3 IN	pENDNK		ENDMK PC Board	END Mark Sensor Detect H : End mark L : Normal


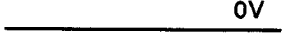


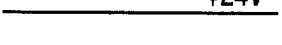
CN20

Pin No.	Signal Name	Signal Waveform	Destination	Function
1 OUT	CUTMVL		MIF PC Board CN61-1	Cutter Motor Drive Signal H : Turn counter-clockwise
2 OUT	CUTMVR		MIF PC Board CN61-2	Cutter Motor Drive Signal H : Turn clockwise
3 OUT	LEDB		MIF PC Board CN61-3	1.46V DC Power Supply to LED (Photo-sensor)
4	GND		MIF PC Board CN61-4	Digital Ground
5 IN	pCUTSEN		MIF PC Board CN61-5	Cutter Position Sensor L : Home position
6 IN	*EXIT		MIF PC Board CN61-6	Recording Paper Exit Sensor L : Paper detected H : No paper detected

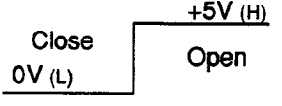
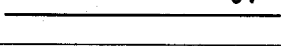
CN21 (1/2)

Pin No.	Signal Name	Signal Waveform	Destination	Function
1 OUT	pHCLK02		Thermal Head	Serial Clock
2 IN	*TM		Thermal Head	Monitoring Thermistor (overheat) Threshold : Approx. 1.1V
3 OUT	ENA4		Thermal Head	Enable Signal (Not used for Rohm head. Used for Kyosera head.)
4 OUT	ENA3		Thermal Head	Enable Signal (Not used for Rohm head. Used for Kyosera head.)
5 OUT	ENA2		Thermal Head	Enable Signal
6 OUT	ENA1		Thermal Head	Enable Signal
7 OUT	pHCLK01		Thermal Head	Serial Clock
8 OUT	*VPDA		Thermal Head	Serial Data
9 OUT	+5V		Thermal Head	+5V DC Power Supply
10	MG		Thermal Head	Mechanical Ground

CN21 (2/2)

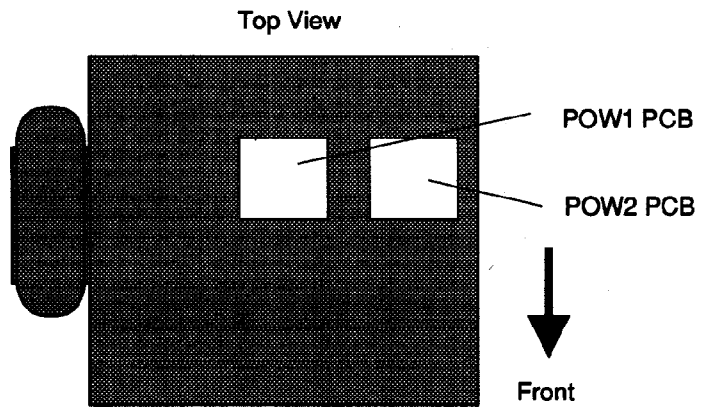
Pin No.	Signal Name	Signal Waveform	Destination	Function
11	MG		Thermal Head	Mechanical Ground
12	MG		Thermal Head	Mechanical Ground
13 OUT	+24VC		Thermal Head	+24V DC Power Supply
14 OUT	+24VC		Thermal Head	+24V DC Power Supply
15 OUT	+24VC		Thermal Head	+24V DC Power Supply

CN22

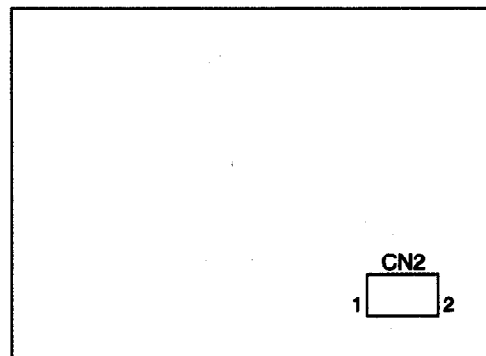
Pin No.	Signal Name	Signal Waveform	Destination	Function
1 IN	RDOR		RDOOR SENSOR	Rear Door Sensor L :Door close H :Door open
2	GND		RDOOR SENSOR	Digital Ground

Power Supply PC Board

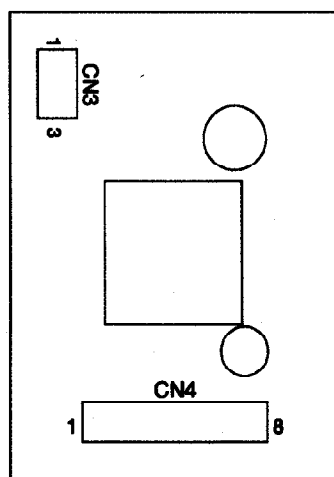
PCB Location



Connector Location on POW1 PC Board





Connector Location on POW2 PC Board



Pin Alignment



(1) POW1 PC Board

CN2

Pin No.	Signal Name	Signal Waveform	Destination	Function
1 OUT	AC LIVE		POW2 PC Board CN3-3	110 VAC / 120 VAC or 220 VAC / 240 VAC
2 OUT	AC NUTRAL		POW 2 PC Board CN3-1	110 VAC / 120 VAC or 220 VAC / 240 VAC

(2) POW2 PC Board

CN3

Pin No.	Signal Name	Signal Waveform	Destination	Function
1 IN	AC NUTRAL		POW1 PC Board CN2-2	110 VAC / 120 VAC or 220 VAC / 240 VAC
2	NC			No connection
3 IN	AC LIVE		POW 1 PC Board CN2-1	110 VAC / 120 VAC or 220 VAC / 240 VAC

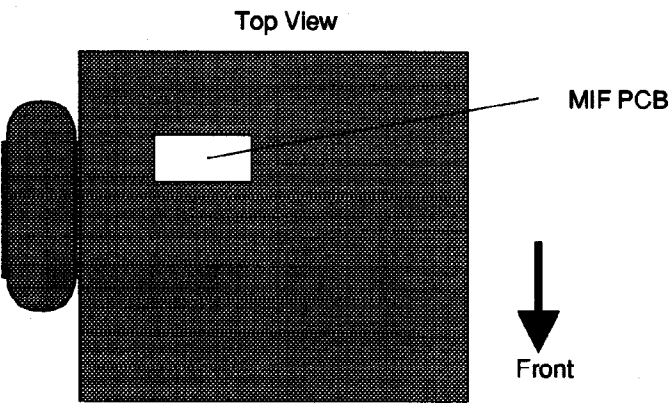
CN4

See CN10 on SC PC Board in page 3-8.

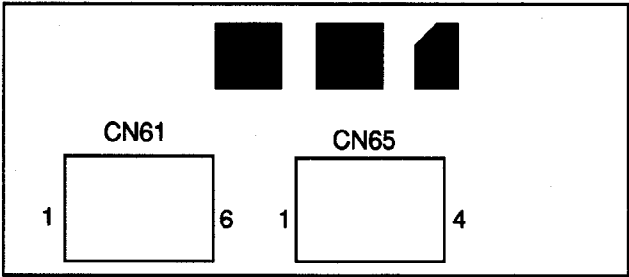
MIF PC Board

PCB Location

MIF PC board is mounted in the Cutter Unit.

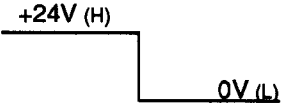
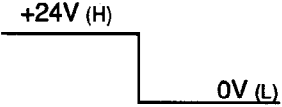
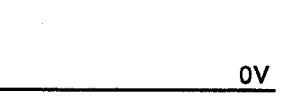
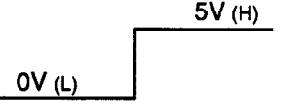


Connector Location on MIF PC Board



Pin Alignment

CN65

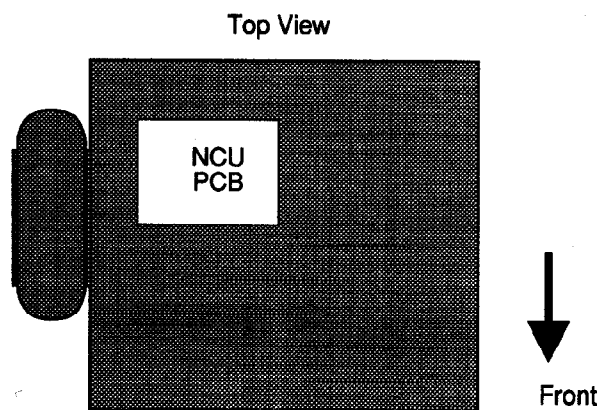
Pin No.	Signal Name	Signal Waveform	Destination	Function
1 OUT	CUTMVL		Cutter Motor	Cutter Motor Drive Signal H : Rotate counter-clockwise
2 OUT	CUTMVR		Cutter Motor	Cutter Motor DriveSignal H : Rotate clockwise
3	GND		Cutter Sensor	Digital Ground
4 IN	pCUTSEN		Cutter Sensor	Cutter Position Sensor Signal L : Home position

CN61

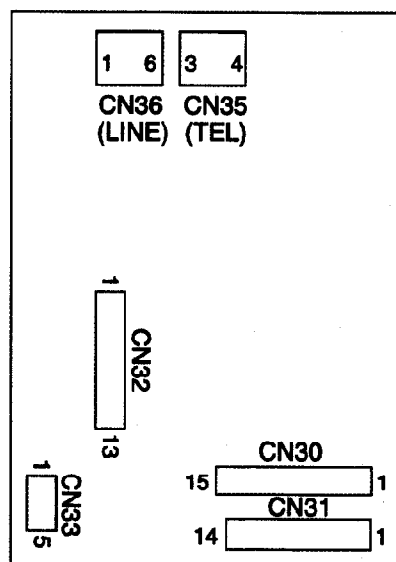
See CN20 on SC PC Board in page 3-17.

NCU PC Board

PCB Location








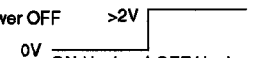




Connector Location on NCU PC Board






Pin Alignment

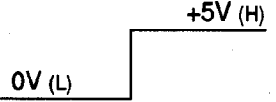
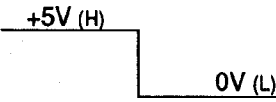


CN32 (1/2)

Pin No.	Signal Name	Signal Waveform	Destination	Function
1	RG2		SRU PC Board CN37-1	Telephone Signals
2	RG2		SRU PC Board CN37-2	Telephone Signals
3	RG1		SRU PC Board CN37-3	Telephone Signals
4	RGOFF	39V Max. 	SRU PC Board CN37-4	Ringer ON/OFF Control H : ON L : OFF
5	RG GND		SRU PC Board CN37-5	Ringer Circuit Ground
6	NC		SRU PC Board CN37-6	No Connection
7	TGND	 0V	SRU PC Board CN37-7	Speech Circuit Ground
8	DRST	Power ON  0V Power OFF  0V ON Hook ↑ OFF Hook	SRU PC Board CN37-8	Dialer reset signal (Used only for U.K., China and Italy)
9	TEL2		SRU PC Board CN37-9	Connected to T2 for U.K., Austria and Sweden
10	TEL1		SRU PC Board CN37-10	Connected to T1 for U.K., Austria and Sweden




CN32 (2/2)

Pin No.	Signal Name	Signal Waveform	Destination	Function
11 IN/OUT	TLL2		SRU PC Board CN37-11	Telephone Signals
12 IN/OUT	TLL1		SRU PC Board CN37-12	Telephone Signals
13 IN/OUT	TLL1		SRU PC Board CN37-13	Telephone Signals




CN33

Pin No.	Signal Name	Signal Waveform	Destination	Function
1	PS (RID)		SRU PC Board CN39-1	Not used
2 IN	MFDP		SRU PC Board CN39-2	Tone/Pulse Slide Switch Position H : Tone Dialing L : Pulse Dialing
3 IN	HKSW		SRU PC Board CN39-3	Hook Switch status of Handset H : On-Hook L : Off-Hook
4 OUT	SPOUT		SRU PC Board CN39-4	Speaker Signal
5	GND		SRU PC Board CN39-5	Digital Ground



CN35 (for U.K., Hong Kong, New Zealand)

Pin No.	Signal Name	Signal Waveform	Destination	Function
2	NC			No Connection
3	T1		External Telephone	Line Signal to External Telephone Device
4	T2		External Telephone	Line Signal to External Telephone Device
5	Shunt		External Telephone	Ringer Signal to External Telephone Device




CN35 (for Switzerland)

Pin No.	Signal Name	Signal Waveform	Destination	Function
2	Earth		External Telephone	Line Earth
3	NC			No Connection
4	T1		External Telephone	Line Signal to External Telephone Device
5	T2		External Telephone	Line Signal to External Telephone Device







CN35 (Other countries)

Pin No.	Signal Name	Signal Waveform	Destination	Function
3 IN/OUT	BTL1		External Telephone	Line Signal to External Telephone Device
4 IN/OUT	BTL2		External Telephone	Line Signal to External Telephone Device

CN36 (for U.K., Hong Kong, New Zealand)

Pin No.	Signal Name	Signal Waveform	Destination	Function
2	L1		Telephone Line	Line Signal
3	NC			No Connection
4	Shunt		Shunt Line	Ringer Signal
5	L2		Telephone Line	Line Signal

CN36 (Other countries)

Pin No.	Signal Name	Signal Waveform	Destination	Function
1	NC or E or T1		External Telephone	No connection or Line Earth or Line Signal to External Telephone Device.
2	NC or E or T1		External Telephone	No connection or Line Earth or Line Signal to External Telephone Device.
3	L1		Telephone Line	Line Signal
4	L2		Telephone Line	Line Signal
5	NC or T2		External Telephone	No connection or Line signal to External Telephone Device.
6	NC or T2		External Telephone	No connection or Line signal to External Telephone Device.

CN30

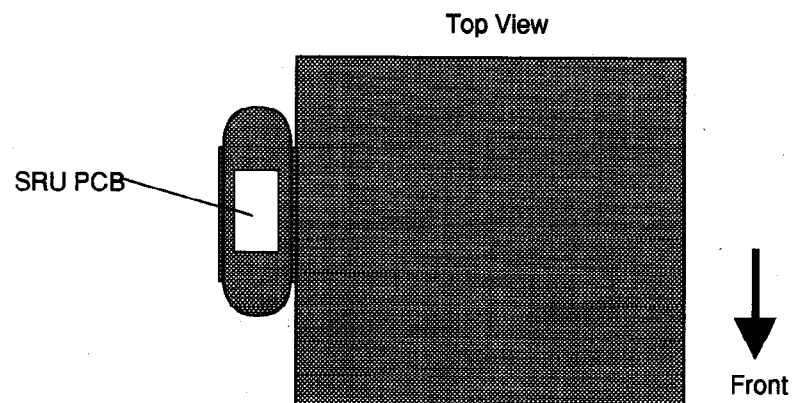
See CN16 on SC PC Board in page 3-12.

CN31

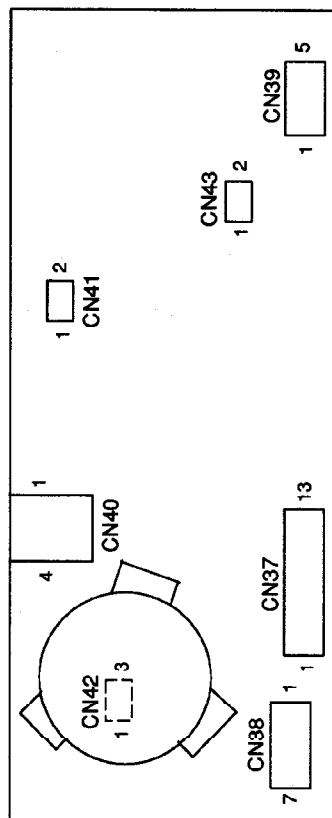
See CN17 on SC PC Board in page 3-14.

SRU PC Board

PCB Location



Connector Location on SRU PC Board










Note 1 CN38 is mounted on DZYC0523B (for UK) and DZYC0522X (for Italy) only.

Note 2 CN42 is not mounted.

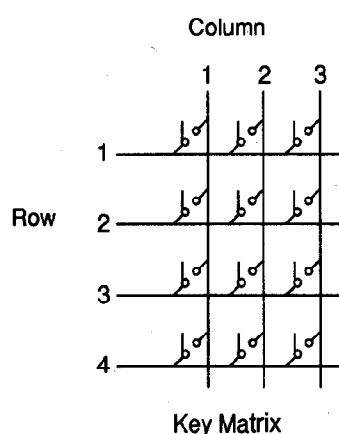
Note 3 CN43 is not used .

Pin Alignment

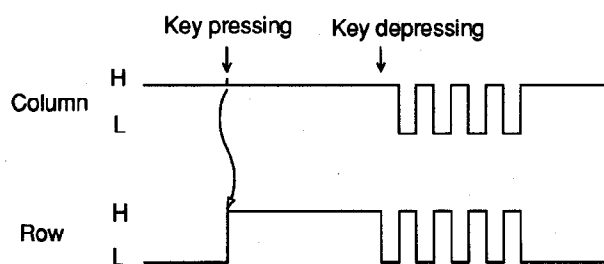
CN38

Pin No.	Signal Name	Signal Waveform		Destination	Function
1	Column 3	Stand by H level 2~5V L	By detecting Key pressing 	Key Matrix in the Control Panel	Scanning signal for Key Matrix when no power occurred.
2	Column 2	H L		Key Matrix in the Control Panel	Scanning signal for Key Matrix when no power occurred.
3	Column 1	H L		Key Matrix in the Control Panel	Scanning signal for Key Matrix when no power occurred.
4	Row 1	L level 0 ~ 1V H L		Key Matrix in the Control Panel	Scanning signal for Key Matrix when no power occurred.
5	Row 2	H L		Key Matrix in the Control Panel	Scanning signal for Key Matrix when no power occurred.
6	Row 3	H L		Key Matrix in the Control Panel	Scanning signal for Key Matrix when no power occurred.
7	Row 4	H L		Key Matrix in the Control Panel	Scanning signal for Key Matrix when no power occurred.

Supplementation :







By detecting key pressing, pluse signal is generated for both row and clumn. Row signal corresponding with key pressed is kept high.





H level about 2V ~ 5V due to power is supplied from line.

CN40

Pin No.	Signal Name	Signal Waveform	Destination	Function
1 IN	MIC +		Handset	Handset Mic. Signal
2 OUT	RCV +		Handset	Handset Receiver Signal
3 OUT	RCV -		Handset	Handset Receiver Signal
4 IN	MIC -		Handset	Handset Mic. Signal

CN41

Pin No.	Signal Name	Signal Waveform	Destination	Function
1 OUT	SP		Speaker	Speaker Signal
2	GND		Speaker	Digital Ground

CN37

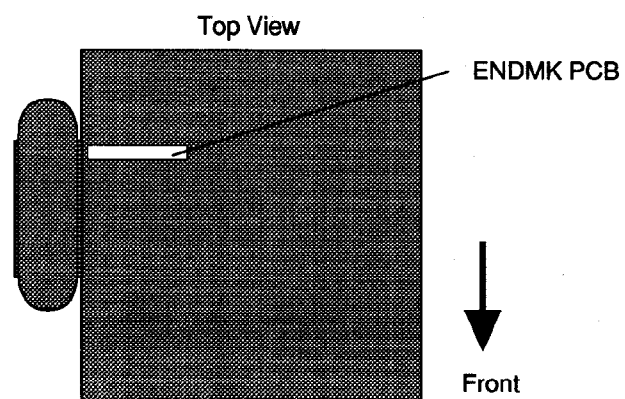
See CN32 on NCU PC Board in page 3-25.

CN39

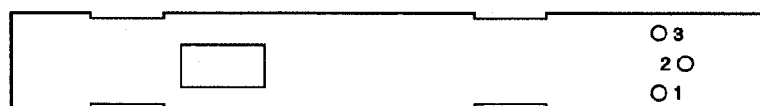
See CN33 on NCU PC Board in page 3-26.

ENDMK PC Board (Only for Germany)

PCB Location

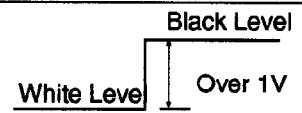


Connector Location on ENDMK PC Board



Pin Alignment

CN

Pin No.	Signal Name	Signal Waveform	Destination	Function
1 IN	LEDA	Approx. +1.2V	SC PC Board CN19-1	Power Supply for LED
2	GND	0V	SC PC Board CN19-2	GND
3 OUT	pENDMK	 <p>Black Level</p> <p>White Level</p> <p>Over 1V</p>	SC PC Board CN19-3	End Mark Output Voltage White Level : Low Output Black Level : High Output

Information Code Table

Information Code Table (1/7)

Info. Code	Mode	Phase	Description of Problem	Cause
001	RCV COPY	-	Leading edge of the recording paper fails to reach the EXIT Sensor.	Recording Paper jam. Exit Sensor abnormal.
002	RCV COPY	-	Trailing edge of the recording paper fails to reach the Exit Sensor.	Recording Paper jam. Exit Sensor abnormal.
003	RCV COPY	-	Cutter did not move out of home position.	Recording Paper jam. Cutter Sensor abnormal.
004	RCV COPY	-	Cutter does not return to home position.	Recording paper jam. Cutter sensor abnormal.
010	RCV COPY	-	No recording paper	No recording paper or paper is not set properly. Paper Sensor is defective.
012	RCV (POLLING)	C D	The length of received document is too long.	The maximum received document length is 78.7 inches (2 m).
020	RX COPY	-	Thermal Head temperature is over 158°F (70 °C)	Thermal Head is defective. (due to abnormal Power Supply) Recording Paper jam
030	XMT	B	RP Sensor does not go On within 10 seconds after document starts feeding.	Document is not set properly. Defective RP Sensor or Actuator.
031	XMT COPY	C	Transmitting document was longer than 39.4 inches (1 m).	Document may get jammed. Defective RP Sensor or Actuator
032	XMT COPY	C	Transmitting document was shorter than 2.8 inches (70 mm).	Document may get jammed. Defective RP Sensor.
060	—	A	Recording Cover is open.	Cover is not firmly closed. Connectors are not firmly connected.
400	XMT	B	T1 timer (35 ± 5 sec.) elapsed without detecting 300 bps signals.	Wrong number is dialed and START button is pressed. Telephone line is disconnected in the course of dialing. SC PCB (Modem) or NCU is defective. Receiver is defective.

Information Code Table (2/7)

Info. Code	Mode	Phase	Description of Problem	Cause
401	XMT	B	DCN was returned from receiver when transmitter waits for CFR or FTT.	No available mailbox in the receiver. There is an incompatibility. (Ex.: Password Transmission)
402	XMT	B	DCN was returned from receiver when transmitter waits for NSF/DIS.	Receiver might work in non-CCITT mode only. There is incompatibility.
403	RCV (Polling)	B	Transmitter had no polling function.	"POLLED=ON" (polling XMT ready) is not set at transmitter. Document to be transmitted is not placed at transmitter.
404	XMT	B	Transmitter sent NSS (or DCS) followed by TCF three times but receiver did not respond. (CFR or FTT is usually returned.)	Receiver is defective.(Modem, NCU etc.) SC PCB (Modem) or NCU is defective. Receiver disconnects line during first NSS (or DCS) transmitted.
405	XMT	B	Transmitter received FTT after it transmitted TCF at 2400bps. Received RTN after communicating at 2400bps.	Line quality is poor. (TCF is damaged due to line noise.) Receiver is defective.(Modem, NCU etc.) SC PCB (Modem) or NCU is defective.
406	RCV (Password Comm.)	B	XMT-Password mismatched. RCV-Password mismatched. Selective RCV incomplete.	XMT, RCV password does not match. Last 4-digit of TSI does not match with the Last 4- digit of ONE-TOUCH, ABBR Telephone number.
407	XMT	D	Transmitter received no response after it transmitted post message such as EOP, MPS, EOM and so on. Or received DCN.	Receiver is defective. (No paper, paper jamming etc.) Receiver ceased receiving because of excessive error. (Line quality is poor.) SC PCB (Modem) or NCU is defective.
408	XMT	D	Transmitter received RTN after it transmitted EOP, MPS or EOM.	Receiver receives data with error. (Line quality is poor.) Receiver is defective.(Modem, NCU etc.) SC PCB (Modem) or NCU is defective.

Information Code Table (3/7)

Info. Code	Mode	Phase	Description of Problem	Cause
409	XMT	D	Transmitter receives PIN after it transmitted a post message such as EOP, MPS, EOM etc.	Receiver receives data with error due to poor line quality, and receiving operator requests voice contact. Receiver is defective (Modem, NCU etc.). SC PCB (Modem) or NCU is defective.
411	RCV (polling)	B	Received DCN after transmitting NSC.	Transmitter is not ready for polling communication. Password does not match between transmitter and receiver.
412	RCV	B D	No response within 12 seconds in NSS/DCS/MPS wait state. (After transmitting FTT, MCF or CFR)	Transmitter is defective. SC PCB is defective.
414	RCV (polling)	B	No response received after transmitting 3rd NSC.	Password does not match between transmitter and receiver. Transmitter is defective. (no document, document jam etc.)
415	RX (polling)	B	Remote side attempted to receive message from your machine in polling communication. "Inform remote side that your machine does not have the polling transmission feature."	There is incompatibility. Key Code does not match between transmitter and receiver.
416	RCV	D	Receiver did not detect post command such as EOP etc.	Transmitter is defective. Line quality is poor. (RTC signal is distorted due to line noise.) SC PCB (Modem) or NCU is defective.
417	RCV	D	Receiver returned RTN in response to post message.	Line quality is poor. (There are excessive errors in receiving data.) SC PCB (Modem) or NCU is defective.
418	RCV	D	Receiver transmitted PIN in response to PRI-Q from transmitter. (Transmitting operator requests voice contact.)	Line quality is poor. (There are excessive errors in receiving data.) SC PCB (Modem) or NCU is defective.

Information Code Table (4/7)

Info. Code	Mode	Phase	Description of Problem	Cause
419	RCV	D	Receiver transmitted PIN in response to Post Message from transmitter. (Transmitting operator requests voice contact.)	Line quality is poor. (There are excessive errors in receiving data.) SC PCB (Modem) or NCU is defective.
420	RCV	B	T1 timer (35 sec.) elapsed without detecting 300 bps signal.	There is a wrong incoming call. (no facsimile communication.) Transmitter is defective. SC PCB (Modem) or NCU is defective.
421	RCV	B	T1 timer (35 sec.) elapsed without detecting 300 bps signal, after receiver receives EOM (End of Message).	Transmitter is defective. SC PCB (Modem) or NCU is defective. Line quality is poor.
422	XMT	B	Received invalid NSF/DIS, NSC/DIC.	Remote unit is defective. SC PCB (Modem) or NCU is defective.
428	RCV	B	Received DCN while waiting DCS.	Transmitter is defective or incompatible. Passwords mismatch.
430	300 bps XMT	B	CS does not go ON within 30 seconds after RS is ON.	SC PCB (Modem) is defective.
431	RCV	B C	DCD does not go ON within 10 seconds after CD (Training Error) is ON.	Line quality is poor. Transmitter is defective. SC PCB (Modem) or NCU is defective.
432	XMT or Polling RCV	B	CD (response from Modem) did not turn OFF within 35 sec. in the initial routine (T1 timer period).	Line quality is poor. (Noise level is too high.) SC PCB (Modem) or NCU is defective.
433	300 bps XMT	D	Preamble was being sent more than 180 sec.	Recording at the remote unit is not finished.
434	XMT or RCV	B D	CD (response from Modem) did not turn OFF within 180 sec. after receiver detected FLAG signal.	Remote unit is defective. SC PCB (Modem) or NCU is defective.
435	RCV	C D	Timer over after sending 300 bps except EOM Reception in phase C, or time over after while waiting frame data detected high speed data.	Line quality is poor. Transmitter is defective. SC PCB (Modem) or NCU is defective.
436	RCV	B C	DCN received after transmitting FTT.	Transmitter is defective or incompatible. Line quality is poor.

Information Code Table (5/7)

Info. Code	Mode	Phase	Description of Problem	Cause
446	RCV	C	DCN received while waiting Post Command.	Transmitter is defective.
447	RCV	D	Did not receive Post Command in 15 sec.	Remote unit is defective. Line quality is poor.
458	RCV	C	Did not receive CD in 10 sec.	Line quality is poor. SC PCB (Modem) or NCU is defective. Remote unit gets a document jammed.
459	RCV	C	Failed training in 10 sec.	Line quality is poor.(Training signal is distorted due to line noise.) SC PCB (Modem) or NCU is defective.
490	RCV	C	Sum of error line exceeded the limit (parameter 39) by 64 lines.	Line quality is poor. SC PCB (Modem) or NCU is defective.
492	RCV	C	Did not receive any data in Receiving Data Buffer in 10 sec.	Remote unit is defective. Line quality is poor. SC PCB (Modem) or NCU is defective.
493	RCV	C	Did not detect the first EOL in 10 sec.	Remote unit gets a document jammed. Line quality is poor. SC PCB (Modem) or NCU is defective.
494	RCV	C	Interval between two EOLs was more than 10 sec. when receiver received message data.	Remote unit is defective. Line quality is poor. SC PCB (Modem) or NCU is defective.
495	RCV	C	Detected CD off.	Remote unit is defective. Line is disconnected. SC PCB (Modem) or NCU is defective.
540	XMT (ECM)	B	No response after transmitting 3rd CTC.	Remote unit is defective. Line quality is poor. SC PCB (Modem) or NCU is defective.
541	XMT (ECM)	D	No response after transmitting 3rd EOR or received DCN.	Remote unit is defective. Line quality is poor. SC PCB (Modem) or NCU is defective.
542	XMT (ECM)	D	No response to the 3rd RR transmitted or received DCN.	Remote unit is defective. Line quality is poor. SC PCB (Modem) or NCU is defective.

Information Code Table (6/7)

Info. Code	Mode	Phase	Description of Problem	Cause
543	XMT (ECM)	D	T5 Timer (60 sec.) elapsed without MCF.	Remote unit is defective.
544	XMT (ECM)	D	Stopped Transmission after EOR Transmission.	Line quality is poor. SC PCB (Modem) or NCU is defective.
549	XMT (ECM)	C	Did not finish sending a block in 8 minutes.	SC PCB (Modem) or NCU is defective.
550	RCV (ECM)	C	Following frame not detected in T1 time.	Remote unit disconnects line.
552	RCV (ECM)	D	RR not detected in 12 seconds after RNR Transmission.	Remote unit is defective.
553	RCV (ECM)	D	Detected DCN under abnormal ending.(except 554, 555)	Remote unit is defective. STOP button is pressed at remote unit.
554	RCV (ECM)	D	Transmitted ERR after receiving EOR	Line quality is poor.
555	RCV (ECM)	D	After receiving EOR, sent PIN and completed the procedure.	Line quality is poor. SC PCB (Modem) or NCU is defective.
556	RCV (ECM)	D	Received invalid FIF in CTC.	Remote unit is defective.
630	XMT or RCV (Polling)	B	Redial count over.	Dial tone is not detected. Second dial tone is not detected. (depending on country.) Busy tone is detected. (depending on country.) T1 timer (35±5 sec.) elapsed without signal from receiver.
870	Mem.XMT Multi-copy		Memory overflowed. File register is full.	Memory overflows.
871	Multi-copy Mem. Print	—	Memory error.	Memory is defective.
872	Multi-station XMT Multi-copy Substitute RCV	—	Memory error. (Decoding error)	Memory is defective.

Information Code Table (7/7)

Info. Code	Mode	Phase	Description of Problem	Cause
873	Multi-station XMT Multi-copy Substitute RCV	—	Memory is empty.	Memory is defective.
874	Multi-station XMT Multi-copy Substitute RCV	—	Memory is abnormal.	Memory is defective.
877	Multi-station XMT Multi-copy	—	Flash memory error.	Memory IC is not mounted. Memory IC is defective.
879	Multi-station XMT Mem.XMT	-	Memory directory overflowed or the file contains more than 99 pages.	Memory directory overflows.
880	Record Message	—	Memory overflowed.	Memory overflows.
990	Multi-CPU operation	-	No response from memory.	SC PCB is defective.
991	Multi-CPU operation	-	Response bit stays off.	SC PCB is defective.
992	Multi-station XMT	-	CODEC error (Encoding error)	CODEC is defective.
993	-	-	Invalid parameter exists.	Invalid parameter is set.
994	Multi-CPU operation	-	Did not receive mechanical control command or memory command.	SC PCB is defective.
995	Multi-CPU operation	-	Did not receive mechanical control command or memory command.	SC PCB is defective.


Diagnostic Codes

The 16-digit Diagnostic Code is provided for the service engineer to analyze how the communication was performed. It can be printed with the Journal by setting the Function Parameter No. 81 : DIAG. PRINT to ON.

(1) Example of Journal

JOURNAL						
SAT, 12-MAR-94 3 : 00 PM						
PANASONIC 123 456 7890						
NO.	DATE	PAGES	DURATION	X/R	IDENTIFICATION	RESULTS(CODE)
1	JAN- 20 7:31 PM	1	1' 37	XMT	PANASONIC	OK

(2) Example of Diagnostic List

DIAGNOSTIC LIST	
SAT, 12-MAR-94 3 : 00 PM	
PANASONIC 123 456 7890	
NO.	RESULTS
1	0 1 8 0 8 2 0 0 0 0 3 2 0 0 0
	

(3) Diagnostic Codes

1st Digit

- : Not used/defined

Data	Definition			
	Auto Dialing	Auto Reception		
0	-	-		
1	-	-		
2	-	-		
3	-	-		
4	-	Used		
5	-	-		
6	-	-		
7	-	-		
8	Used	-		
9	-	-		
A	-	-		
B	-	-		
C	-	-		
D	-	-		
E	-	-		
F	-	-		

2nd Digit

- : Not used/defined

Data	Definition			
	Polling	Reception	Transmission	
0	-	-	-	
1		-	Used	
2	-	Used	-	
3	-	-	-	
4	-	-	-	
5	Used	-	Used	
6	Used	Used	-	
7	-	-	-	
8	-	-	-	
9	-	-	-	
A	-	-	-	
B	-	-	-	
C	-	-	-	
D	-	-	-	
E	-	-	-	
F	-	-	-	

3rd Digit

- : Not used/defined

Data	Definition			
	G3 Non Standard	ECM	Frame Size	
0	-	-	-	
1	-	-	-	
2	-	-	-	
3	-	-	-	
4	-	Used	256	
5	-	-	-	
6	-	Used	64	
7	-	-	-	
8	Used	-	-	
9	-	-	-	
A	Used	-	-	
B	-	-	-	
C	Used	Used	256	
D	-	-	-	
E	Used	Used	64	
F	-	-	-	

4th Digit

- : Not used/defined

Data	Definition			
	Short Protocol B			
0	-			
1	-			
2	Used			
3	-			
4	-			
5	-			
6	-			
7	-			
8	-			
9	-			
A	-			
B	-			
C	-			
D	-			
E	-			
F	-			

5th Digit**: Always "0"**

Data	Definition			
0				
1				
2				
3				
4				
5				
6				
7				
8				
9				
A				
B				
C				
D				
E				
F				

6th Digit**- : Not used/defined**

Data	Definition			
	Modem Speed			
0	2400 bps			
1	4800 bps			
2	7200 bps			
3	9600 bps			
4	-			
5	-			
6	-			
7	-			
8	-			
9	-			
A	-			
B	-			
C	-			
D	-			
E	-			
F	-			

7th Digit
- : Not used/defined

Data	Definition			
	MMR	MH	MR	
0	-	-	-	
1	-	-	-	
2	-	-	Used	
3	-	-	Used	
4	-	Used	-	
5	-	Used	-	
6	-	-	-	
7	-	-	-	
8	Used	-	-	
9	Used	-	-	
A	-	-	-	
B	-	-	-	
C	-	-	-	
D	-	-	-	
E	-	-	-	
F	-	-	-	

8th Digit
- : Not used/defined

Data	Definition			
	K Parameter			
0	2			
1	4			
2	8			
3	∞			
4	-			
5	-			
6	-			
7	-			
8	-			
A	-			
B	-			
C	-			
D	-			
E	-			
F	-			

9th Digit**- : Not used/defined**

Data	Definition			
	Vertical Resolution			
0	-			
1	15.4 (Super Fine)			
2	-			
3	-			
4	-			
5	-			
6	-			
7	-			
8	-			
9	-			
A	-			
B	-			
C	-			
D	-			
E	-			
F	-			

10th Digit**- : Not used/defined**

Data	Definition			
	Vertical Resolution			
0	-			
1	3.85 (Standard)			
2	-			
3	-			
4	7.7 (Fine)			
5	-			
6	-			
7	-			
8	-			
9	-			
A	-			
B	-			
C	-			
D	-			
E	-			
F	-			

11th Digit
- : Not used/defined

Data	Definition			
	Min. Scan Line Time			
0	-			
1	10 ms			
2	20 ms			
3	-			
4	40 ms			
5	-			
6	-			
7	-			
8	-			
9	-			
A	-			
B	-			
C	-			
D	-			
E	-			
F	-			

12th Digit
- : Not used/defined

Data	Definition			
	Min. Scan Line Time			
0	-			
1	0 ms			
2	1.25 ms			
3	-			
4	2.5 ms			
5	-			
6	-			
7	-			
8	5 ms			
9	-			
A	-			
B	-			
C	-			
D	-			
E	-			
F	-			

13th Digit
- : Not used/defined

Data	Definition			
	Min. Scan Line Time			
	Fine	Standard		
0	20 ms	20 ms		
1	5 ms	5 ms		
2	10 ms	10 ms		
3	10 ms	20 ms		
4	40 ms	40 ms		
5	20 ms	40 ms		
6	5 ms	10 ms		
7	0 ms	0 ms		
8	-			
9	-			
A	-			
B	-			
C	-			
D	-			
E	-			
F	-			

14th Digit
- : Not used/defined

Data	Definition			
	Min. Scan Line Time w/ MWS		Min. Scan Line Time w/ MWS-2	
	S-Fine & Fine	Standard	S-Fine & Fine	Standard
0	-	-	-	-
1	-	-	T x 1	T x 1
2	-	-	T x 1	T x 1/2
3	-	-	T x 1/2	T x 1/2
4	T x 1	T x 1/2	-	-
5	-	-	-	-
6	-	-	-	-
7	-	-	-	-
8	T x 1/2	T x 1/2	-	-
9	-	-	-	-
A	-	-	-	-
B	-	-	-	-
C	T x 1/2	T x 1/4	-	-
D	-	-	-	-
E	-	-	-	-
F	-	-	-	-

Note : T = Min. Scan Line Time

15th Digit
- : Not used/defined

Data	Definition			
	NSF	DIS	NSS	DCS
0	-	-	-	-
1	-	-	-	Used
2	-	-	Used	-
3	-	-	Used	Used
4	-	Used	-	-
5	-	-	-	-
6	-	-	-	-
7	-	-	-	-
8	Used	-	-	-
9	-	-	-	-
A	-	-	-	-
B	-	-	-	-
C	Used	Used	-	-
D	-	-	-	-
E	-	-	-	-
F	-	-	-	-

16th Digit
- : Not used/defined

Data	Definition			
	Numeric ID	Character ID		
0	-	-		
1	-	-		
2	-	-		
3	-	-		
4	-	Received		
5	-	-		
6	-	-		
7	-	-		
8	Received	-		
9	-	-		
A	-	-		
B	-	-		
C	Received	Received		
D	-	-		
E	-	-		
F	-	-		

Test Mode Table

The following test modes are provided to help you to set various functions and test the condition of the machine.

Test Mode

No	Test Mode	Description
0	PRINT TEST PATTERN	Test Pattern Printout Printing mechanism and electrical circuit will be tested by printing a test pattern from the memory.
1	FUNCTION PARAMETER	Function Parameter Factory default values can be changed.
2	EDIT SYSTEM RAM	System RAM Edit Factory use only. When you need to change the RAM values please consult with MGCS Engineering department.
3	PRINT RAM DATA	RAM Data Printout Function Parameter list in Test Mode 1 and RAM data in Test Mode 2 will be printed.
4	CCD TEST	CCD Test Document scanning mechanism and electrical circuit will be tested by scanning a document and checking the output signal from the CCD.
5	XMT TEST TONE	Tonal Signal Generation Modem function will be tested by sending fax signals.
6	RAM INITIALIZE	RAM Initialization Reset or clear the RAM data.
7	XMT DTMF TONE	DTMF Signal Generation Modem functioning will be tested by sending DTMF signals.
8	NOT USED	
9	MEMORY TEST	To check the Document Memory. (Only used for UF-V60)
10	LCD & LED	LCD and LED Test LCD and LED will be tested by lighting them.
11	ID SET	ID No. Setting ID No. can be entered by this mode. This test mode is only for the countries where service personnel is to enter the ID No.
12 ~ 13	NOT USED	
14	COPY MODE SET	Copy Mode Factory use only.

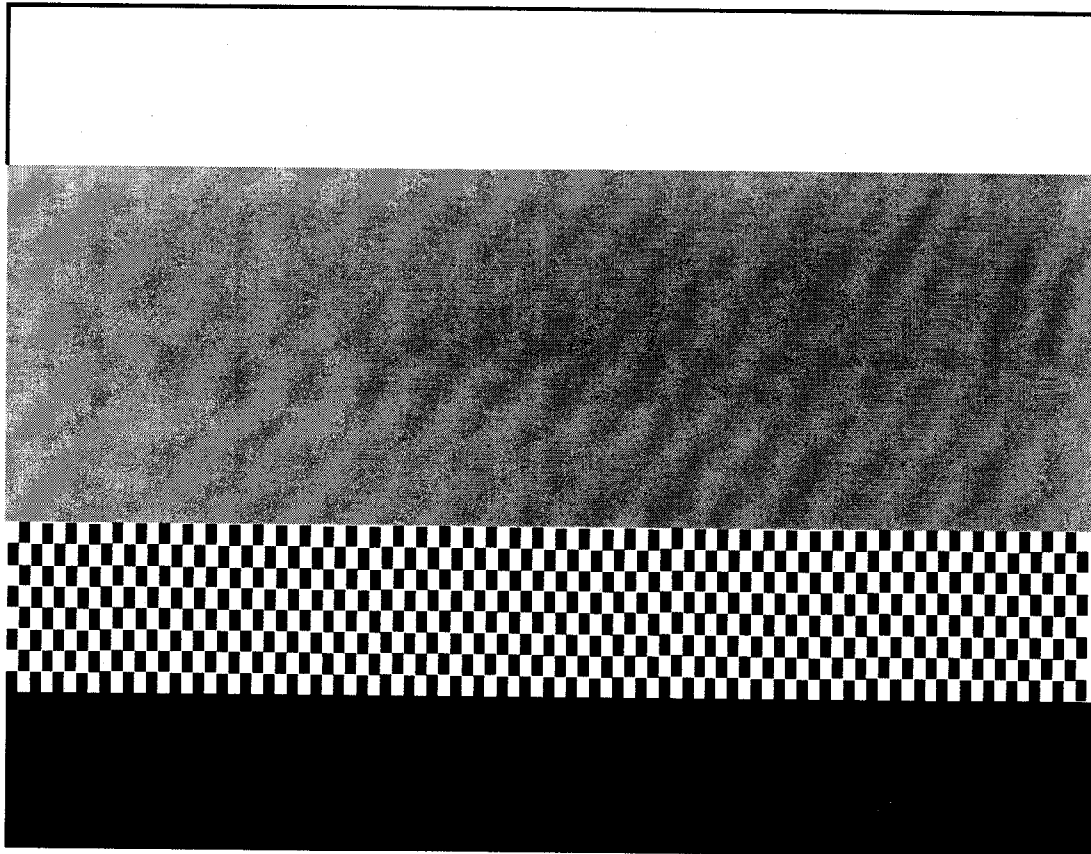
Test Mode 0 : Print a Test Pattern

A test pattern is printed by following the procedure below.

Test Mode 0 Operation

Step	Operation or Unit Condition	LCD Display
1	Standby	12-MAR SAT 03:00PM
2	Press "FUNCTION" and "4".	FAX PARAMETERS (v ^)
3	Press "#", "★", "#" and "#".	TEST MODE (v ^)
4	Press "0" and "START".	* PRINTING *
5	After printing, the display returns to step 3 above.	TEST MODE (v ^)
6	Press "STOP" to return to standby.	12-MAR SAT 03:00PM

Test Pattern



Test Mode 1: Function Parameter

Function Parameter settings are changed by following the procedure below.

Test Mode 1 Operation

Step	Operation or Unit Condition	LCD Display
1	Standby	12-MAR SAT 03:00PM
2	Press "FUNCTION" and "4".	FAX PARAMETERS (v ^)
3	Press "#", "★", "#", and "#".	TEST MODE (v ^)
4	Press "1", and "START".	PARAMETER (v ^)
5	To select the parameter you want to change, enter a 2-digit code listed in the Function Parameter Table or scroll the display by pressing the "v" or "^" button . Example : Changing "Redial Interval" Press "5", "2", and "START"	REDIAL INT.:180S
6	Pressing "<" or ">" button to select the desired setting.	REDIAL INT. :120S
7	Press "START" and the new setting will be stored. Display will show the next parameter.	REDIAL COUNT :02
8	Press "STOP" twice to return to standby.	12-MAR SAT 03:00PM

Note: Key function

"START" :The new setting value is stored in the machine.

"v" : Scroll down (increment) the Function Parameter No.

"^" : Scroll up (decrement) the Function Parameter No.

">" : Select the settings.

"<" : Select the settings.

"CLEAR" : Back to Step 4 screen.

Function Parameter

No.	Parameter	Selections	Default Value	Description
1 ~ 2	NOT USED			
03	TX JAM CHECK	OFF ON	ON	Document length determined as a jam. Off :Unlimited length On :Up to 1m
04	HEADER PRINT	IN NONE OUT	IN	Header printing position In :Inside of the original picture area None :No header Out :Outside of the original picture area
05 ~ 09	NOT USED			
10	RX JAM CHECK	OFF ON	ON	Maximum length of recording Off :Unlimited length On :Up to 2m
11	AUTO CUT	OFF ON	ON	Automatic cut of the recording paper Off :Recording paper is not cut. On :Recording paper is cut automatically.
12 ~ 19	NOT USED			
20	TX ATT	-00 dBm -01 dBm ~ -15 dBm	-09 dbm	Transmission signal output level Highest : -00dBm Lowest : -15dBm
21	RX ATT	-33 dBm -38 dBm -43 dBm -48 dBm	-43 dbm (Note 1)	Receiving sensitivity Lowest : -33dBm Highest : -48dBm
22	TX START	9600 bps 7200 bps 4800 bps 2400 bps	9600 bps	Modem starting speed in transmission
23	RX START	9600 bps 7200 bps 4800 bps 2400 bps	9600 bps	Modem starting speed in reception
24	G3 RX EQL	0 dB 4 dB 8 dB 12 dB	0 dB	Cable equalizer in G3 reception mode

Note 1 : Germany is -48 dBm.

Function Parameter

No.	Parameter	Selections	Default Value	Description
25	G3 TX EQL	0 dB	0 dB	Cable equalizer in G3 transmission mode
		4 dB		
		8 dB		
		12 dB		
26	CED & 300	75 ms	75 ms	Pause time between CED and NSF/CSI/DIS signal
		500 ms		
		1000 ms		
27	COMM. STRT	1st DIS	1st DIS	Communication start up condition 1st DIS :Starting up with the first reception of the NSF and DIS.
		2nd DIS		2nd DIS :Starting up with the second reception of the NSF and DIS.
28	EP TONE	OFF	OFF	Echo protect tone on V.29 mode
		NSTD-C		
		NSTD-B & C		
		ALL-C		
		ALL-B & C		
29	TCF	100ms+1s	200ms+1.2s	The TCF signal discard and checking time.
		100ms+1.2s		
		200ms+1s		
		200ms+1.2s		
30	NON-STANDARD	OFF	ON	NSF and NSS signal transmission Off :G3 standard mode On :G3 non-standard mode
		ON		
31	CSI TX	OFF	ON	CSI signal transmission Off :Not transmitted. On :Transmitted.
		ON		
32	TSI/CIG TX	OFF	ON	TSI and CIG signal transmission Off :Not transmitted. On :Transmitted.
		ON		
33	POL. PASSWORD	OFF	OFF	Checking polling password before Fax Bulletin Board data is being transmitted. (UF-V60 only) Off :Not checked. On :Checked.
		ON		
34	S-PROTOCOL	OFF	(B)	Short Protocol B Off :Not used. (B) :Used.
		(B)		
35	MWS	Off	Type 1 & 2	Matsushita White Skip function Off :Not selected. Type 1 :MWS Type 1 is selected. Type 1 & 2 :MWS Type 1 & 2 are selected.
		TYPE 1		
		TYPE 1 & 2		
36	CODING	MH	MH/MR/MMR	Coding scheme MH / MR / MMR is only for UF-V60.
		MH/MR		
		MH/MR/MMR		

Function Parameter

No.	Parameter	Selections	Default Value	Description
37	ECM	OFF	ON	ITU-T/CCITT Error Correction Mode (UF-V60 only) Off :Not selected. On :Selected.
		ON		
38	SELECT RCV	OFF	OFF	Selective Reception mode Compare the last 4 digits of the calling station's ID with the last 4 digits of each speed dialing station. Off :Not check. On :Check.
		ON		
39	ERR LINE CNT	32 lines	64 Lines	Error Line Counter When the machine detects the error lines equal to or more than the line number set, the machine will disconnect the line.
		64 lines		
		96 lines		
		128 lines		
		160 lines		
		192 lines		
		244 lines		
		255 lines		
40	ERR LINE %	5 %	10 % (Note 2)	Error Line percentage When the machine detects the error lines equal to or more than the percentage set, the machine will disconnect the line.
		10 %		
		15 %		
		20 %		
41	ERR DETECT	CNT	CNT (Note 3)	Error detection method CNT :Determined by the Error Line Counter. % :Determined by the Error Line percentage.
		%		
42	NOT USED			
43	DC Loop	OFF	OFF	Checking DC Loop Off :Check DC Loop. On :Not check.
		ON		
44	MONITOR	OFF	OFF	Monitoring the communication protocol through the speaker Off :Not selected. On :Protocol will be heard through the speaker.
		ON		
45	ITU-T S-FINE	OFF	ON	ITU-T/CCITT Super Fine resolution Off :Not selected. On :Selected.
		ON		
46 ~ 49	NOT USED			
50	BREAK RATIO	0%	56%	Dial Pulse Break Ratio The number entered will be the Break Ratio.
		1%		
		~		
		98%		

Note 2 : The Netherlands is 5 %.

Note 3 : Germany and the Netherlands is %.

Function Parameter

No.	Parameter	Selections	Default Value	Description
51	FLASH KEY	FLASH	FLASH	Flash and Earth key function Flash :Flash key function is selected. Earth :Earth key function is selected.
		EARTH		
52	REDIAL INT.	30 s	180 sec.	Automatic Redial interval The machine will redial automatically with the interval set if the called station is busy.
		60 s		
		120 s		
		180 s		
53	REDIAL COUNT	0	5 times (Note 4)	Automatic Redial number Automatic Redial will be tried by the number set up to 98 times.
		1 time		
		~		
		98 times		
54	ON HOOK TIME	1 sec.	5 sec.	Waiting time before calling the next station in Multi-Station Transmission After sending a document to a station the machine will wait the period selected and then start calling the next station.
		5 sec.		
		10 sec.		
		60 sec.		
55	BUSY TONE CK	OFF	ON (Note 4)	Busy Tone detection Off :Not check. On :Check.
		ON		
56	DIAL TONE CK	OFF	ON (Note 5)	Dial Tone detection Off :Not check. On :Check.
		ON		
57	PBX. DT. CK	OFF	OFF (Note 5)	PBX Dial Tone detection Off :Not check. On :Check.
		ON		
58	VOICE SNS	-33 dBm	-43dBm (Note 6)	Receiving sensitivity for voice
		-38 dBm		
		-43 dBm		
		-48 dBm		
59	P.HK OFF CHK	OFF	ON (Note 7)	Parallel telephone off hook detection Off :Not check. On :Check.
		ON		
60	RMT RX TMG	50 ms	50 ms	Monitoring duration of DTMF in Remote Reception Monitoring duration of DTMF generated by an external telephone in Remote Reception
		80 ms		
		110 ms		
		140 ms		
		170 ms		
		200 ms		

Note 4 : May vary depending on country

Note 5 : No function depending on country

Note 6 : Germany is -48 dBm.

Note 7 : North, Central & South America are ON.

Function Parameter

No.	Parameter	Selections	Default Value	Description
61	RMT RX DIGIT	2	2	No. of digit for Remote Reception Code 2 :2 digits 4 :4 digits
		4		
62	RMT RX CODE	00 ~ 99, **, ##	**	Remote Reception Code Preset Remote Reception code.
63	DTMF DETECT	OFF	ON	DTMF detection in Remote Reception Detect DTMF generated by the external telephone set while the calling and called parties are talking over the telephone Off :DTMF will be ignored On :DTMF will be detected.
		ON		
64	RMT CONTROL	OFF	ON	Remote Control for built-in TAM and External TAM (UF-V60 only) Off :Invalid Remote control On :Remote control for the built-in TAM
		ON		
65	SILENT TIME	00 sec.	6 sec.	Monitoring duration of the incoming voice. If External TAM mode is selected and no incoming voice is detected during the period set, the machine will start Fax reception process. Select the desired duration according to the External TAM specifications.
		01 sec.		
		~		
		15 sec.		
66	TEL PRIORITY	TEL	FAX	Telephone priority TEL :Not accept START key FAX :Start Fax operation by START key.
		FAX		
67	VOICE TX	-0 dBm	-6 dBm	OGM output level
		-1 dBm		
		~		
		-15 dBm		
68 ~ 70	NOT USED			
71	REMOTE DIAG	OFF	ON	Remote Diagnostic Mode Off :Not accept the diagnosis. On :Allow the center station to diagnose.
		ON		
72	DIAG CODE			Remote Diagnostic Password Enter 4 digit password.
73 ~ 80	NOT USED			
81	DIAG PRINT	OFF	OFF	Diagnostic Code Printout Diagnostic code will be printed following the Journal printout Off :Not printed. On :Printed.
		ON		

Note : The default setting of parameters may vary depending on the country's specifications or regulations. Print the Function Parameter List to confirm the default settings. (See Test Mode 3 : RAM Data Printout.)

Test Mode 2 : System RAM Edit

RAM data can be changed by following the procedure below. However, please do not change any data in this Test Mode 2 unless you are informed the correct meaning of each RAM data.

Test Mode 2 Operation

Step	Operation or Unit Condition	LCD Display
1	Standby	12-MAR SAT 03:00PM
2	Press "FUNCTION" and "4".	FAX PARAMETERS (v ^)
3	Press "#", "★", "#" and "#".	TEST MODE (v ^)
4	Press "2" and "START".	#000 [] =
5	Enter the RAM address you want to change.	
6	Enter the new RAM data and press "START".	
7	Repeat the step 5 to 6 if you want to change any other RAM data.	
8	Press "STOP" twice to return to standby.	12-MAR SAT 03:00PM

Test Mode 3 : RAM Data Printout

Function Parameter List and the settings in Test Mode 1 and RAM data in Test Mode 2 can be printed by following the procedure below.

Test Mode 3 Operation

Step	Operation or Unit Condition	LCD Display
1	Standby	12-MAR SAT 03:00PM
2	Press "FUNCTION" and "4".	FAX PARAMETERS (v ^)
3	Press "#", "★", "##" and "#".	TEST MODE (v ^)
4	Press "3" and "START".	* PRINTING *
5	After printing, the display returns to step 3 above.	TEST MODE (v ^)
6	Press "STOP" to return to standby.	12-MAR SAT 03:00PM

Test Mode 4 : CCD Test

Document scanning will be started by following procedure below.

Test Mode 4 Operation

Step	Operation or Unit Condition	LCD Display
1	Standby	12-MAR SAT 03:00PM
2	Press "FUNCTION" and "4".	FAX PARAMETERS (v ^)
3	Press "#", "★", "#", and "#".	TEST MODE (v ^)
4	Set a document on the ADF. Press "4" and "START". The machine will start scanning the document	CCD TEST
5	Press "START" to stop the feeding of the document. The machine is still scanning the document. Check the output signal sent from CCD.	CCD TEST
6	Press "START" to restart feeding the document.	CCD TEST
7	Repeat step 4 to 6 to check the signal if necessary.	CCD TEST
8	Press "STOP" twice and the display will return to standby.	12-MAR SAT 03:00PM

Test Mode 5 :Tonal Signal Generation

The following signals listed in the Tonal signal table can be send from the machine by following the procedure below.

Test Mode 5 Operation

Step	Operation or Unit Condition	LCD Display
1	Standby	12-MAR SAT 03:00PM
2	Press "FUNCTION" and "4" .	FAX PARAMETERS (v ^)
3	Press "#" , "★" , "#" , and "#" .	TEST MODE (v ^)
4	Press "5" and then press "START" .	TONE = 9600 bps OFF
5	Enter the signal No you want to generate. (see Tonal signal table below.) Example : V27ter 4800bps Enter "3" , or scroll the display by pressing "v" or "^" .	TONE = 4800 bps OFF
6	Press "START" and the signal will be sent out.	TONE = 4800 bps ON
7	Press "STOP" to end the signal generation. To select another signal, repeat step 5.	TONE = 4800 bps OFF
8	Press "STOP" twice to return to standby.	12-MAR SAT 03:00PM

Tonal Signal Table

Key Button	Signals	Display
1	V29 9600bps Data (mark : 1)	TONE = 9600 bps OFF
2	V29 7200bps Data (mark : 1)	TONE = 7200 bps OFF
3	V27ter 4800 bps Data (mark : 1)	TONE = 4800 bps OFF
4	V27ter 2400bps Data (mark : 1)	TONE = 2400 bps OFF
5	300bps Flag pattern	TONE = 300 bps OFF
6	462Hz	TONE = 462 Hz OFF
7	1100Hz	TONE = 1100 Hz OFF
8	1650Hz	TONE = 1650 Hz OFF
9	1850Hz	TONE = 1850 Hz OFF
0	LINE	TONE = LINE OFF
*	2100Hz	TONE = 2100 Hz OFF

Test Mode 6 : RAM Initialization

RAM data is initialized or cleared by following the procedure below.

Test Mode 6 Operation

Step	Operation or Unit Condition	LCD Display
1	Standby	12-MAR SAT 03:00PM
2	Press "FUNCTION" and then "4".	FAX PARAMETERS (v ^)
3	Press "#", "★", "#", and "#".	TEST MODE (v ^)
4	Press "6" and then press "START".	RAM INITIALIZE
5	Press the dial number (2-digits) to select the initialize mode. (See below)	TEST MODE (v ^)
6	Press "STOP" to return to standby.	12-MAR SAT 03:00PM

RAM Initialization

Key Button	Description
★	Parameter initialize. RAM settings in Test Mode 1 and Test Mode 2 will be initialized to the default settings
1, 0	Logo and ID settings will be cleared.
1, 2	Journal data will be cleared.
1, 3	One-Touch and ABBR. Nos. will be cleared.
1, 4	Passwords, Fax and Message Transfer Station Nos, Timer Switch and Diagnostic Codes will be cleared.
9, 9	Shipment set Delete and initialize all RAM data. (See Note 1)

Note 1: This operation should be performed when the machine is installed.

Test Mode 7 : DTMF Signal Generation

DTMF (Dual Tone Multi-Frequency) signal is generated by following the procedure below.

Test Mode 7 Operation

Step	Operation or Unit Condition	LCD Display
1	Standby	12-MAR SAT 03:00PM
2	Press "FUNCTION" and "4".	FAX PARAMETERS (v ^)
3	Press "#", "*", "#", and "#".	TEST MODE (v ^)
4	Press "7" and "START".	[0] 941 & 1336 OFF
5	Press a key button to select the DTMF signal. (See below) Example : 770 & 1209 Hz Press "4".	[4] 770 & 1209 OFF
6	Press "START", then the DTMF signal is sent.	[4] 770 & 1209 ON
7	Press "STOP" and the DTMF signal will be stopped.	
8	To test other signals, repeat step 5 to 7.	
9	Press "STOP" twice and the display will return to standby.	12-MAR SAT 03:00PM

DTMF Signal

Key Button	DTMF	Display
1	697 & 1209 Hz	[1] 697 & 1209 OFF
2	697 & 1336 Hz	[2] 697 & 1336 OFF
3	697 & 1477 Hz	[3] 697 & 1477 OFF
4	770 & 1209 Hz	[4] 770 & 1209 OFF
5	770 & 1336 Hz	[5] 770 & 1336 OFF
6	770 & 1477 Hz	[6] 770 & 1477 OFF
7	852 & 1209 Hz	[7] 852 & 1209 OFF
8	852 & 1336 Hz	[8] 852 & 1336 OFF
9	852 & 1477 Hz	[9] 852 & 1477 OFF
0	941 & 1336 Hz	[0] 941 & 1336 OFF
*	941 & 1209 Hz	[*] 941 & 1209 OFF
#	941 & 1477 Hz	[#] 941 & 1477 OFF

Test Mode 10 : LCD and LED Test

LCD and LED are lit by following the procedure below.

Test Mode 10 Operation

Step	Operation or Unit Condition	LCD Display
1	Standby	12-MAR SAT 03:00PM
2	Press "FUNCTION" and "4".	FAX PARAMETERS (v ^)
3	Press "#", "★", "#", and "#".	TEST MODE (v ^)
4	Press "1", "0", and "START".	LCD & LED TEST
5	Press "START" and all digits on LCD and LEDs will be lit.	■■■■■■■■■■■■■■■■■■■■
6	Press "START" to turn off LCD and LEDs	
7	Press "STOP" twice to return to standby.	12-MAR SAT 03:00PM

Test Mode 11 : ID No Setting

This test mode is only for the countries where service personnel is to enter the ID number. If the operation of entering the ID number is not listed in the User's Guide attached, follow the procedure below to enter the ID number.

Test Mode 11 Operation

Step	Operation or Unit Condition	LCD Display
1	Standby	12-MAR SAT 03:00PM
2	Press "FUNCTION" and "4".	FAX PARAMETERS (v ^)
3	Press "#", "★", "#", and "#".	TEST MODE (v ^)
4	Press "1", "1", and "START".	TEL:■
5	Enter the telephone number. (Max. 20 digits)	TEL:1234567■
6	Press "START".	TEST MODE (v ^)
7	Press "STOP" to return to standby.	12-MAR SAT 03:00PM

Chapter 7

Exploded View & Parts List

Country Code	Country	Country Code	Country
AA	Austria	YA	Argentina
AB	U.K.	YC	Others (200 V)
AC	Canada	YS	Others (100 V)
AD	Denmark	YE	Indonesia
AE	Taiwan	YF	Polland
AF	Finland	YG	Greece
AG	Germany	YH	Hungary
AH	Holland	YK	Kuwait
AJ	Spain	YM	Malyasia
AK	Hong Kong	YP	Pakistan
AL	Asutralia	YR	Russia
AM	Switzerland	YS	Saudi Arabia
AN	Norway	YT	Thailand
AP	Portugal	YU	U.A.E.
AQ	Ireland	YV	China
AR	Belgium	YW	South Africa
AS	Sweden	YX	Singapore
AT	Turkey	YY	Mid-South America (100 V)
AU	U.S.A.	YZ	Mid-South America (200 V)
AV	France		
AW	New Zealand		

7.1 Upper Transmission & Control Panel Block (1/3)

[illegible]

[illegible]

Upper Transmission & Control Panel Blocok (3/3)

Ref No.	Part No.	Part Name	AA	AB	AD	AE	AF	AG	AH	EE	AJ	AK	AL	AM	AN	AP	AQ	AR	AS	AT	AV	AW	YA	YB	YC	YM	YS	YT	YV	YW	YX	YY	Location
1022	DZNA000053	Panel Sheet(UF-V60)								1																						2K	
1022	DZNA000057										1																						
1022	DZNA000054											1																					
1022	DZNA000055															1																	
1022	DZNA000070																1																
1022	DZNA000056																	1															
1022	DZNA000010																		1														
1022	DZNA000058																																
1023	DZKB000006		LED Window	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5K
1030	DZKB000006		Button A	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5H
1030	DZKB000002	Button B	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6J	
1031	DZKB000019		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
1031	DZKB000018		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
1032	DZKB000006	Button C	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5G
1032	DZKB000004	Button C	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5G
1040	DZKM000001	Click Sheet	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5G
1050	DZYC0543AA	Panel PC Assy(UF-V40)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6J
1050	DZYC0543BA	Panel PC Assy(UF-V40)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7K
1050	DZYC0543AB	Panel PC Assy(UF-V60)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
1050	DZYC0543BB	Panel PC Assy(UF-V60)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	
1060	DZDS000001	Microphone	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5F
1061	DZJM000006	Microphone Cover	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5F
1070	DZFP000012	Earth Strap	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6G
1080	DZJA000009	Upper Trans mission Chassis	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6E
1081	DZJM000006	Plastic Film	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7C
1082	DZJM000007	Plastic Film	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8B
1090	DZLM000001	Bush	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6A,6C,8D,7C
1100	DZLF000001	Gear	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7E
1110	DZLA000002	Document Exit Roller	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7B
1120	DZLA000001	Feed Roller	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7B
1130	DZLK000001	Timing Belt	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7D
1140	DZJM000002	Guide Spring Plate	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4D
1150	DZJN000007	ADF Separator Rubber	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4D
1160	DZJM000003	Pressur Plate	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3C
1170	DZKN000027	Coil Spring	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3C
1180	DZJM000004	S-Stopper	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3A
7B	XTB26+6J	Screw	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	7F

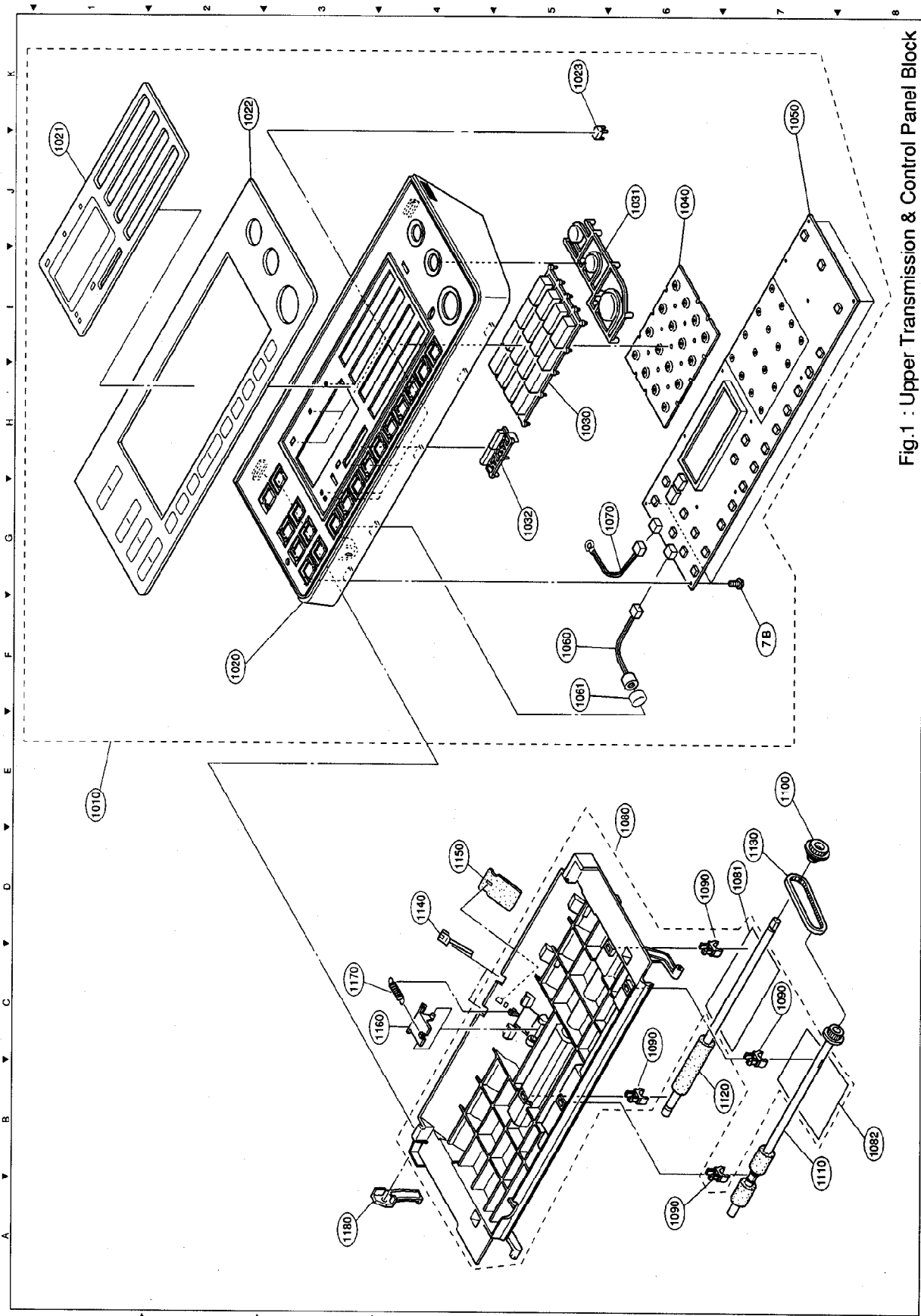


Fig.1 : Upper Transmission & Control Panel Block

7.2 Base Block & Optical Unit Block (1/2)

[illegible]

Base Block & Optical Unit Block (2/2)

Ref No.	Part No.	Part Name	AA	AB	AD	AE	AF	AG	AH	EE	AJ	AK	AL	AM	AN	AP	AQ	AR	AS	AT	AU	AV	AW	VX	VY	VW	YX	YY	Location
2080	DZYC0557Y	Power Supply Unit1 (200V)	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2J	
2090	ETXA53A6A	Power Supply Unit2 (100V)				1															1							2K	
2090	ETXA53A6E	Power Supply Unit2 (200V)	1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
2100	DZHA000001	Insulation Sheet	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	14J	
2110	DZJA000010	NCU Shassis Assy	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	5J	
2111	DZHA000002	Plastic Sheet	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6K	
2120	DZKB000001	Latch Button				1	1																					7K	
2120	DZKB000005		1	1	1		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
2130	DZMC000002	Base Cover	1						1																			7I	
2130	DZMC000016							1																					
2130	DZMC000003																												
2130	DZMC000004		1	1		1														1	1	1	1	1	1	1	1		
2140	DZMM000001	Rubber Foot	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8G
2150	DZLA000005	Pinch Roller	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8G
2151	DZKG000001	Pinch Roller Shaft	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8E
2152	DZKP000004	Plate Spring	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	8E
2160	DZGB000001	Verification Stamp Assy																			1		1					7D	
2160	DZGB000002		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
2161	DZHT000003	Verification Stamp Head																				1						7E	
2161	DZHT000004		1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1		
2170	DZJC000002	Micro Switch Bracket	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3G
2171	DZCH000001	Micro Switch	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3H
2180	DZJM000032	Film(Only for UK)																										4E	
1Y	XTB3+-10J	Screw	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1J
A5	DZPB000001	Screw	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1G, 1H,1I,2A,2D,2I,2K,3B,3G,3J,5K,7D
A6	XSB4+-10N	Screw	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	4K
B2	P3X8TSSMW	Screw	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2K
24	XYN4+F8	Screw	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2H
96	XYN26+6J	Screw	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1A

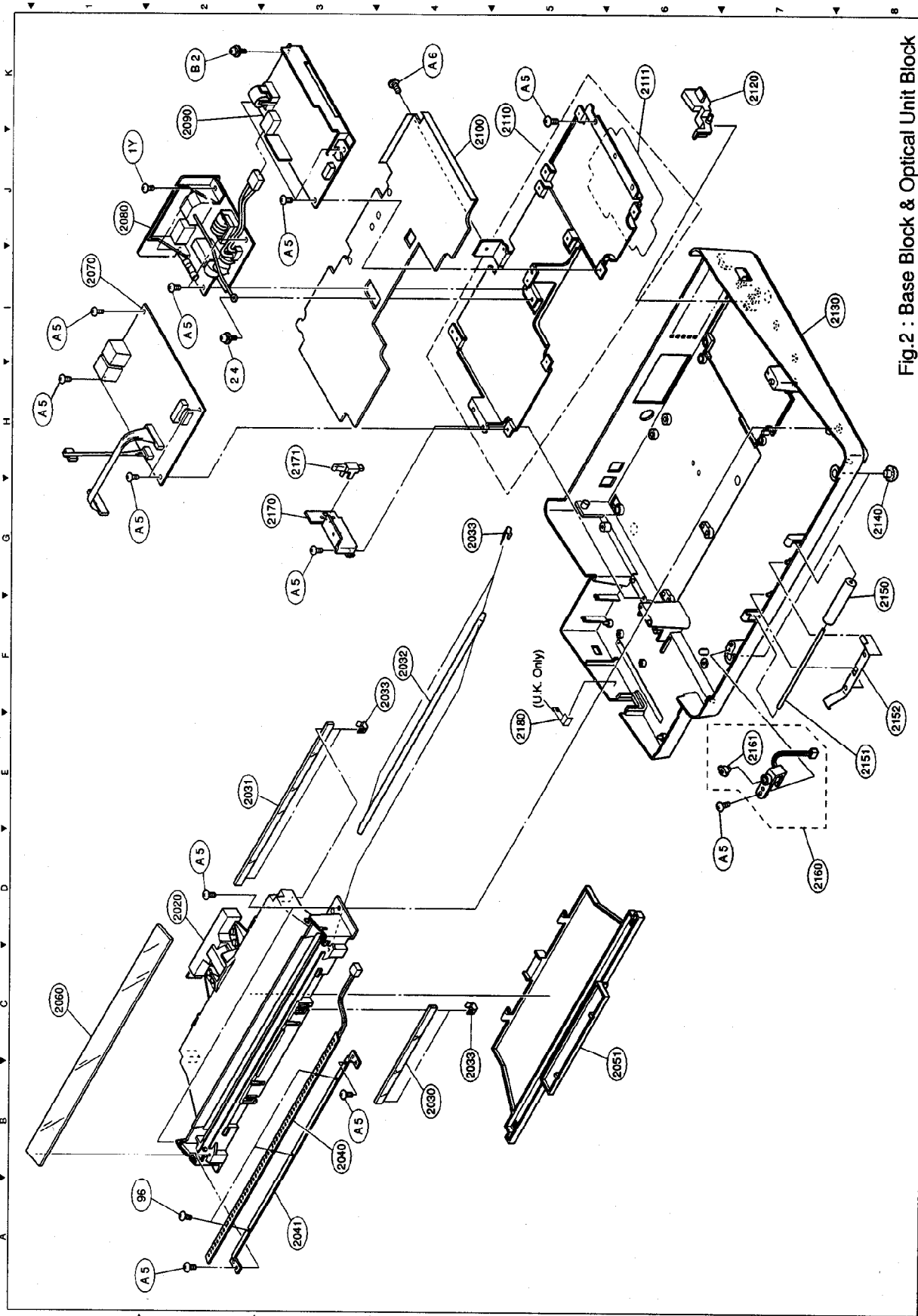


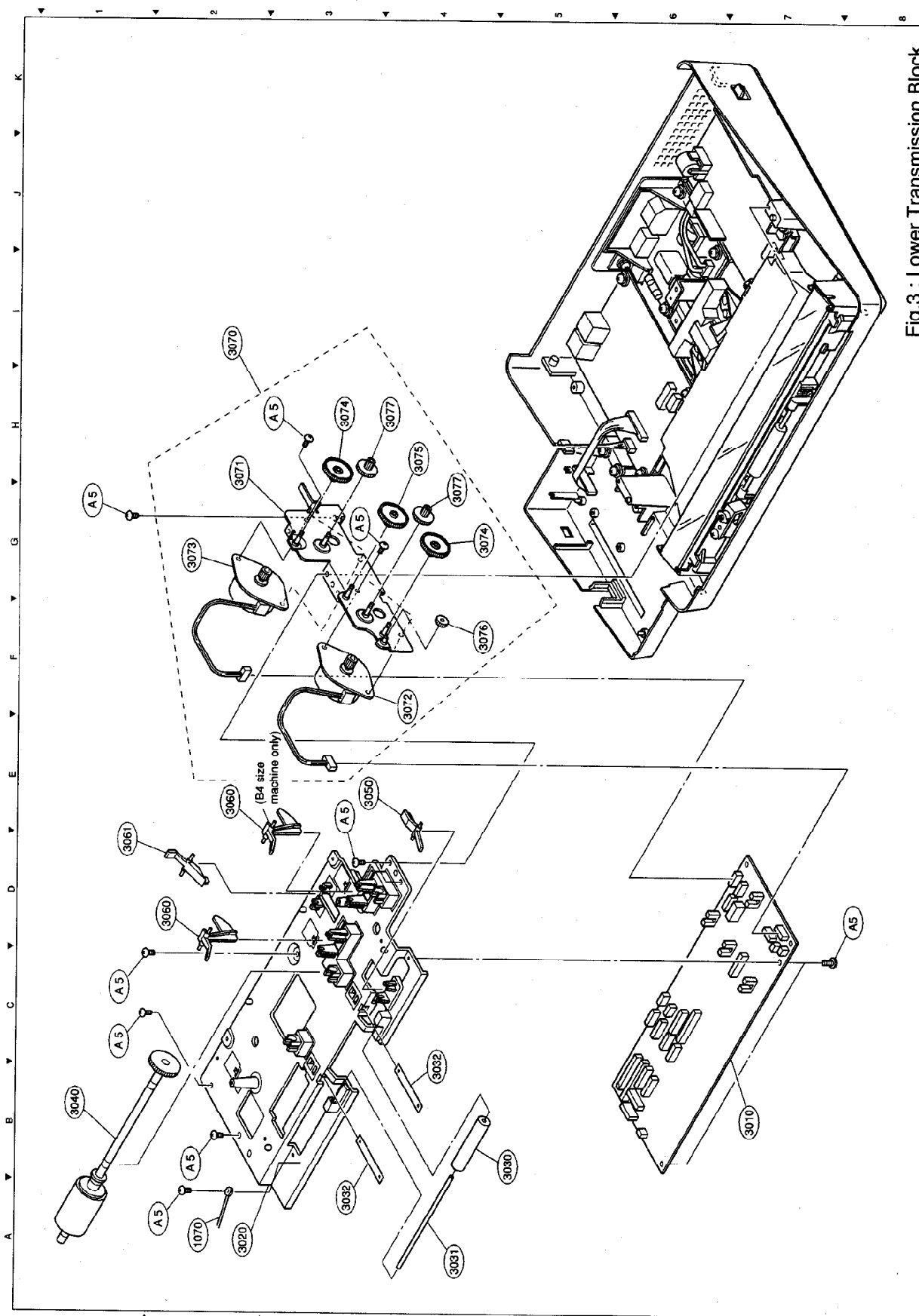
Fig.2 : Base Block & Optical Unit Block

7.3 Lower Transmission Block (1/2)

[illegible]

Lower Transmission Block (2/2)

[illegible]



7.4 Recording Block & Handset Cradle Block (1/2)

[illegible]

Recording Block & Handset Cradle Block (2/2)

[illegible]

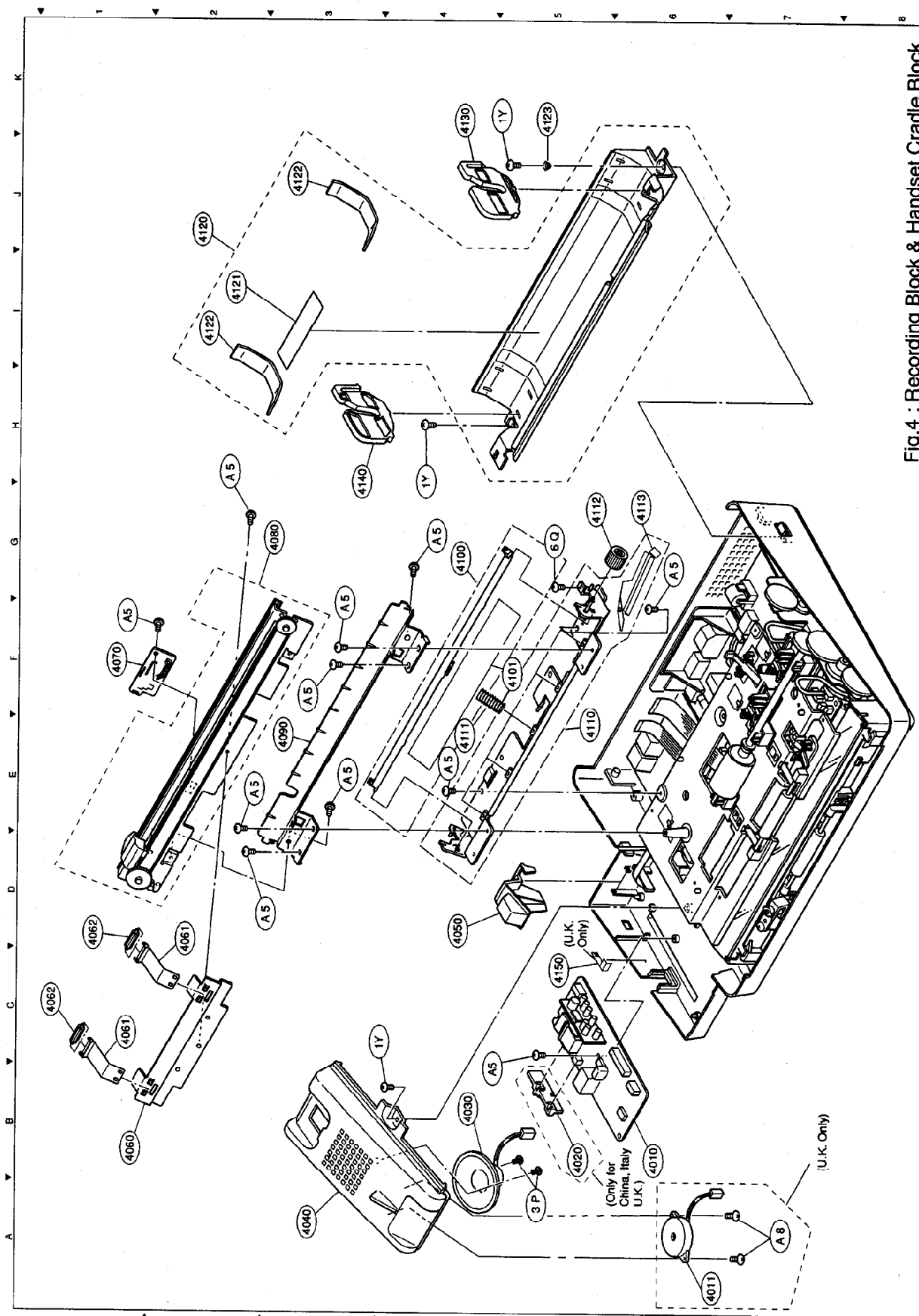


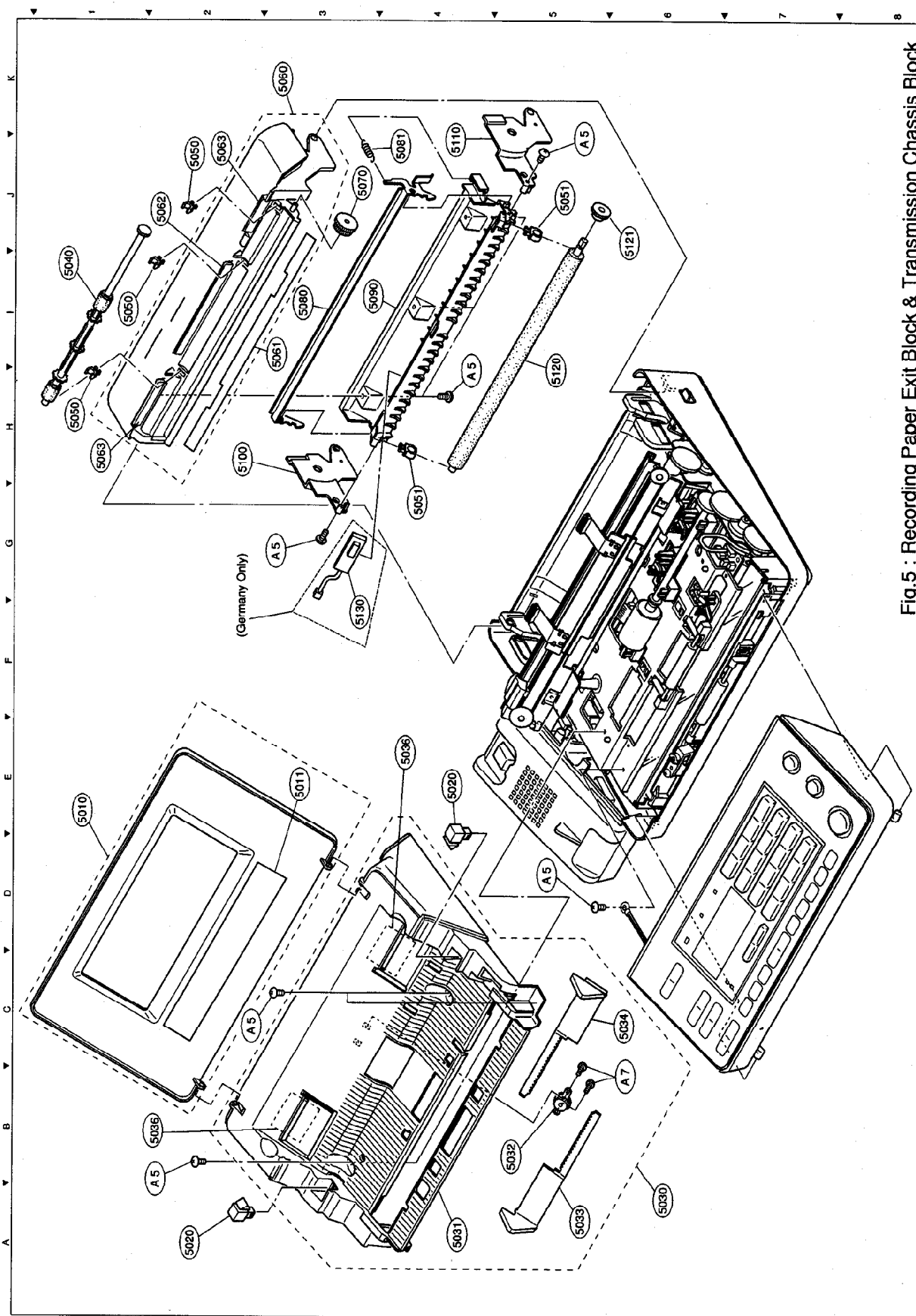
Fig.4 : Recording Block & Handset Cradle Block

7.5 Recording Paper Exit Block & Transmission Chassis Block (1/2)

[illegible]

Recording Paper Exit Block & Transmission Chassis Block (2/2)

[illegible]



7.6 Electrical Parts (1/4)

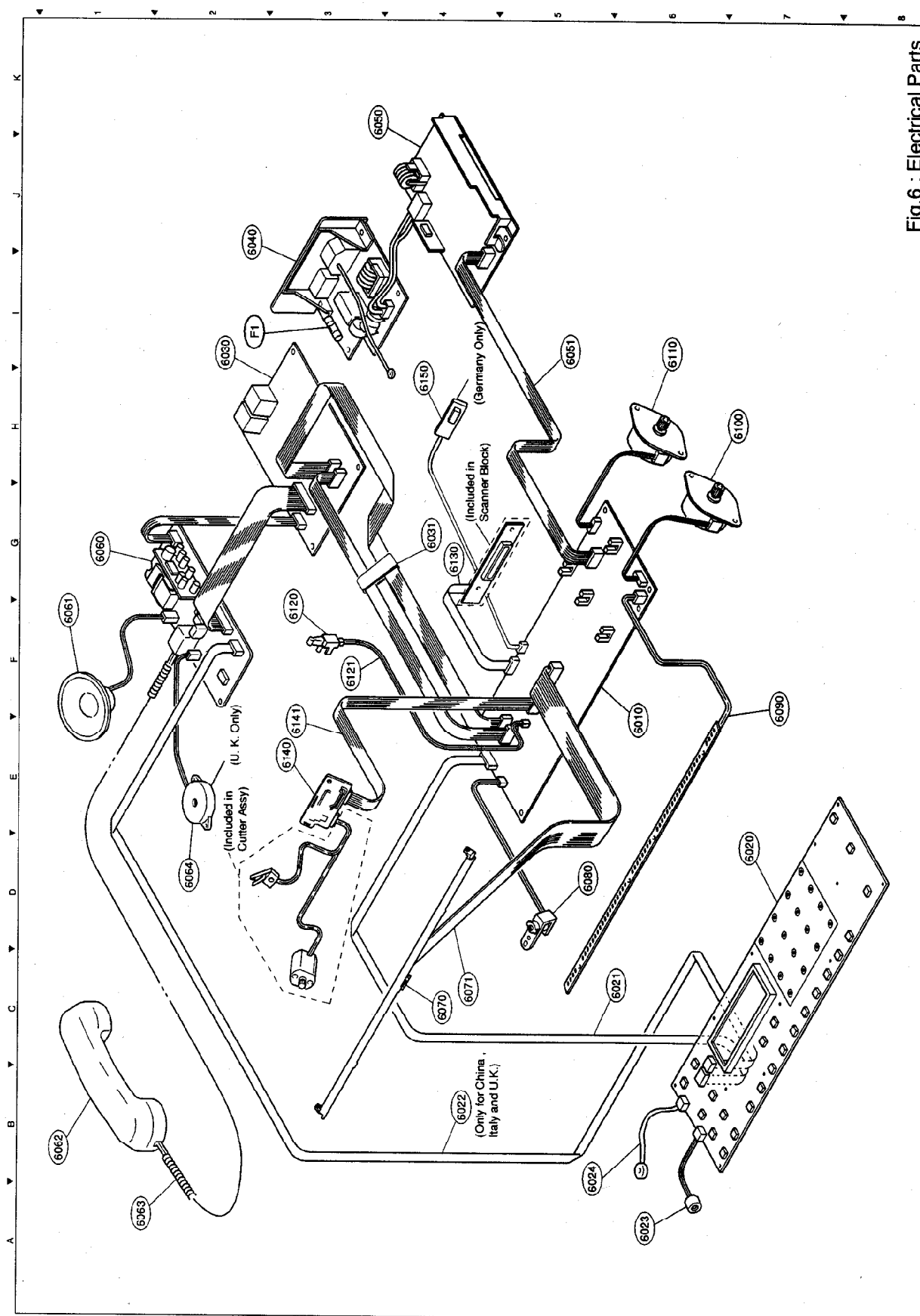
[illegible]

[illegible]

[illegible]

Electrical Parts (4/4)

[illegible]



Ref No.	Part No.	Part Name
7010	DZFM000002	Power Supply Cord
7010	DZFM000003	
7010	DZFM000004	
7010	DZFM000012	
7010	DZFM000008	
7010	DZFM000011	
7010	DZFM000009	
7010	DZFM000010	
7010	DZFM000007	
7020	DZFN000009	Line Cord
7020	DZFN000029	
7020	DZFN000003	
7020	DZFN000027	
7020	DZFN000006	
7020	DZFN000007	
7020	DZFN000031	
7020	DZFN000026	
7020	DZFN000028	
7020	DZFN000023	
7020	DZFN000030	
7020	DZFN000020	
7020	DZFN000021	
7020	DZFN000015	
7020	DZFN000017	
7020	DZFN000025	
7020	DZFN000016	
7020	DZFN000018	
7020	DZFN000019	
7020	DZFN000022	
7020	DZFN000024	
7030	DZFN000002	
7030	DZFN000004	
7040	DZDU000002	Handset
7040	DZDU000005	
7040	DZDU000006	
7040	DZDU000008	
7050	DZRJ000002	Plastic Bag
7051	DZSD000003	User's Guide(UF.V40)

Packing & Accessories (2/3)

[illegible]

Packing & Accessories (3/3)

[illegible]

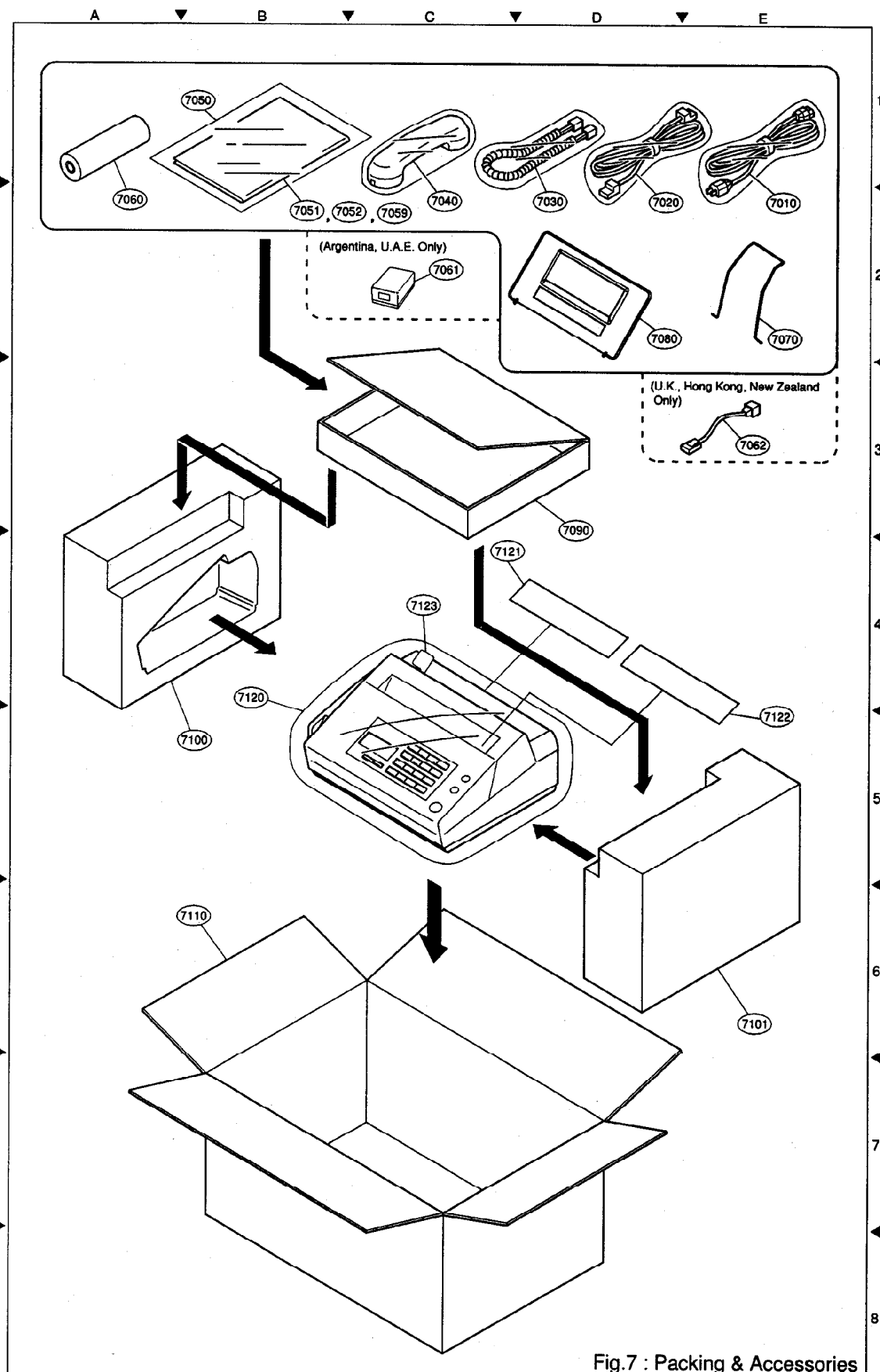


Fig.7 : Packing & Accessories